

<213> Homo sapiens

<400> 1988

Lys Leu Val Ala Asp Gly His Leu Asp Glu Arg Leu Gly Arg Asp Phe
 1 5 10 15
 Asp Leu Glu Thr Leu Ala Ala Ala Leu Asp Pro Thr Arg Asp Asp Leu
 20 25 30
 Ile Gly Phe Met Gly Val Arg Thr Met Ile Asn Arg Tyr Leu Leu Arg
 35 40 45
 Thr Pro Asp Lys Gln Ala Leu Glu Val Pro Gln Tyr Phe Trp Met Arg
 50 55 60
 Val Ala Met Gly Leu Ser Leu Thr Glu Asp Asp Pro Thr Ser Ser Ala
 65 70 75 80
 Xaa Cys Leu Tyr Asp Ser Met Ser Asn Leu Arg His Leu Ala Ala Gly
 85 90 95
 Ser Thr Leu Val Asn Ala Gly Thr His Xaa Ala Gln Leu Ser Asn Cys
 100 105 110
 Phe Val Met Arg Thr Glu Asp Asn Leu Glu His Ile Ala Gln Thr Ile
 115 120 125
 Arg Asp Val Met Trp Ile Thr Lys Gly Thr Val
 130 135

<210> 1989

<211> 10795

<212> DNA

<213> Homo sapiens

<400> 1989

ccagagcccc ctgcgcccaa aggtcactgg gactatttgt gcgaagagat gcagtggctc
 60
 tctgctgact ttgctcagga gcgcccgttg aaacgggggtg tggcccgga ggtgggtgcg
 120
 atggtgatcc ggcaccacga ggagcagcgg cagaaagagg aacgggcccg gagggaggag
 180
 caggccaagc tgcgtcgaat tgcttccacc atggccaagg atgtcaggca gttctggagc
 240
 aatgtggaga aggtgggtgca attcaagcaa cagtcccggc ttgaggaaaa gcgcaaaaaa
 300
 gccctggacc tgcatttga cttcattgtg gggcaaaactg aaaagtactc ggaccttctg
 360
 tctcagagcc tcaaccagcc attaacctcc agcaaagcag gctcttcccc ttgcctcggc
 420
 tcttctcag ctgcctccag tcctccaccc cctgcttctc gcctggatga tgaagatggg
 480
 gactttcaac cccaagagga tgaggaagag gatgatgagg aaacgattga agttgaagaa
 540
 caacaggaag gcaatgatgc agaggcccag aggcgtgaga ttgagctgct tcgccgtgag
 600
 ggagaattgc cactggaaga gctgctccgt tcccttcccc ctcagctgtt ggaagggcct
 660
 tccagcccct ctcaaaccct ctcattcat gatagtgaca cccgagatgg gcctgaagaa
 720
 ggtgctgaag aagagccccc tcaggtgttg gagataaagc cccacccctc tgctgtcaca
 780

cagcgcaaca aacagccttg gcatccagat gaagatgatg aagagtttac tgccaacgaa
840
gaggaagcgg aggatgaaga ggatactata gcagctgagg aacagttgga aggggaggtg
900
gatcatgcc a tggagctgag cgagttggct cgagaaggtg agctttccat ggaggagcta
960
ttgcagcagt atgcaggagc ctatgcccc a ggctctggga gcagtgaaga tgaggatgaa
1020
gatgaggttg atgctaata g ctctgactgt gaaccagagg gggccgtgga agcggaagag
1080
cctcctcagg aggatagtag cagtcagtca gactctgtgg aggaccggag tgaggatgag
1140
gaagatgaac attcagagga ggaagaaaca agtggaggtt cagcatcaga ggaatctgag
1200
tctgaagagt ctgaggatgc ccaatcacag agccaagcag atgaagagga ggaagatgat
1260
gattttgggg tggagtactt gcttgccagg gatgaagagc agagtgaggc agatgcaggc
1320
agtgggcctc ctactccagg gccactact ctaggtccaa agaaagaaat tactgacatt
1380
gctgcagcag ctgaaagtct ccagcccaag ggttacacgc tggccacgac ccaggtaaag
1440
acgccattc ccctgcttct ggggggcccag ctccgggagt accagcacat tgggctagac
1500
tggctgggta ccatgtatga gaagaagctt aatggcattc ttgctgatga gatggggctt
1560
gggaagacca tccagaccat ctctctgctt gccacttgg cttgtgagaa aggtaactgg
1620
ggccccatt taatcattgt tcccaccagc gtgatgttga actgggagat ggagttgaaa
1680
cgttggtgcc ccagctttta aatcctcact tactatggag ccagaaaaga gaggaagctc
1740
aagcggcagg gctggacca gcccattgcc tttcatgtgt gtatcacatc ttacaagctg
1800
gtgctgcagg accaccaggc cttccgtcgc aagaactggc gctatctcat tctggatgag
1860
gcgcagaaca tcaagaactt caagtcacag cgctggcagt cactcctcaa cttcaacagc
1920
cagagacgcc tgctcctgac aggaactccc ttgcagaaca gcctcatgga gctgtgggtc
1980
ttgatgcact ttttgatgcc ccatgtcttc cagtctcatc gcgagttcaa ggagtgggtc
2040
tctaattccc taactggcat gattgagggc agccaagagt ataataagag tctagtcaaa
2100
cgctccaca aggttttgag gcctttttta ctgcgccgag ttaagggtgga tgttgagaag
2160
cagatgccc aaaagtacga gcatgttatc cgctgcaggc tctccaagcg tcaacgctgt
2220
ctctatgatg acttcatggc acagaccaca actaaggaga cactagccac aggccatttc
2280
atgagcgtca tcaacatttt gatgcagctg agaaaagttt gcaatcatcc aaatctgttc
2340
gacctcgac cggttacctc ccttttcac accccaggca tctgcttcag caccgcctct
2400

ctggtgctaa gggccacgga tgtccatccc ctccagcgga tagacatggg tggatttgac
 2460
 cttattggcc tggaaggteg tgtctctcga tatgaggcag acacatttct gccccggcac
 2520
 cgctctcttc gccgggtact gttagaagtg gctactgctc ctgaccccccc accccggccc
 2580
 aagccagtca agatgaaggc caacaggatg ctgcagccag tacctaagca agaaggccgg
 2640
 acagtgggtg tggatgaaca cccacggggc cccctgggac ctgtcccagt tggacctcct
 2700
 ccaggctcctg agctctcagc ccagcccacc cctggcccag tcccccaagt gctgccagca
 2760
 tcaatgatgg tttcagcctc acctgcccgg cccccgctta ttctctgcatc tgggctcct
 2820
 ggccctgtcc tcttgccctc actgcagccc aacagtgggt ctctccccca ggtgttgcca
 2880
 tccccctgg gggctctgag tgggacctca cggcctccca cgccaacctt gtccttaaag
 2940
 ccaacaccac ctgccccagt tgcctgagc ccagcccac ctccaggccc ctctagcctg
 3000
 ttgaagcccc tgacagtgc accaggctac accttccctc ctgctgctgc caccaccact
 3060
 tctaccacca cggcaactgc taccaccaca gcagtgccag ctccgactcc tgcaccacag
 3120
 cgctcattc tatctccga tatgcaggct cgctgcccct caggcgaagt ggtcagcatc
 3180
 gggcagttag cctcactggc acaacgtcca gtggctaag cagggggaag caaacctctc
 3240
 accttccaaa tccagggcaa caagctgact ttgactgggt cccagggtgc ccagcttgct
 3300
 gtggggcagc cccgcccgt gcaaagtcca ccaaccatgg tgaataatac aggcgtgggtg
 3360
 aagattgtag tgagacaagc cctcgggat ggactgactc ctgttctctc attggcccca
 3420
 gcaccccggc ctccagctc tgggcttcca gctgtgttga atccacgccc caggttaacc
 3480
 cctggccggc taccacacc tactctgggt actgctcag ccccatgcc cacaccact
 3540
 ctggtgaggc ctcttctcaa gctgggtccac agtccttcc ctgaagtcag tgcctcagcc
 3600
 cccggagctg ccccttgac catctctct cctctccag tgccatcctc actccctggg
 3660
 ccagcctctt ctccaatgcc aattcccaac tctctcccc ttgctagtcc tgtgtcctct
 3720
 acagtctcag ttccattgtc atcttcaact cccatctctg tccccaccac acttctgccc
 3780
 ccagcctcgg ctccactcac catccccatc tcagccccct tgactgtttc tgcctcgggc
 3840
 ccagctctgt tgaccagtgt gactccacca ttggcacctg ttgtcccagc ggctcctgga
 3900
 cctccctcct tggcaccatc tgggtgcttc ccgtcagcat cagccttgac tctaggtttg
 3960
 gccacagctc catccctgtc ttcattctag acacctggc accctctgtt gttggctccc
 4020

acctcttcac atgttccagg gttgaactca accgtggccc cagcatgctc acctgtcctg
4080
gtgccagctt cggctctggc cagtcctttt ccgtcagcac caaatccagc tccagctcag
4140
gcttcccttc tggtccagc atcttctgca tctcaggctc tagccacccc tctggctcct
4200
atggcggtc cacagacagc aattctggct ccttctccag ctctctctct ggctcctctt
4260
ccggtcctgg caccatcgcc aggtgctgct cctgtcctgg ctcatcaca gactccggtt
4320
ccagttatgg ctccatcgct tactccagga acctcttttag cctcagcttc accggtacca
4380
gtccaacccc ctgtgttggc tccatcatca actcaaaacta tgctaccagc cccggttccg
4440
tcacctctcc cgagcccggc ttctacgcag aactggccc tagccccagc tttagcacc
4500
actcttgag gctcatctcc atctcagaca ctctctttgg gaacggggaa ccccagggg
4560
ccctttccaa ctccagacatt gtcattaact ccagcatcat ccctgggtacc aactccagcc
4620
cagacactgt ctttggcacc aggaccacca ctgggtccaa ctccagacgt gtctctggct
4680
ccagcacccc ctctggctcc agcttctcca gtgggcccag cccagctca cacgtgact
4740
ttggctccag catcgtcac tgcttactc ctggccccag cttcagtga gacactgacc
4800
ttgagccctg cccagttcc taccctgggc ccggccgcag ctccagacctt ggcgtggcc
4860
ccagctcca cacagtcccc agcttcccag gcattctccc ttgtggtttc ggcattcgtt
4920
gccgtccct tgctgtcac catggtatcc cggctgcctg tttccaagga tgagcctgac
4980
acactgacat tgcgtctggt tccccccagc cctccctcca ctgctacctc gtttggtggc
5040
ccccggctc gacgccagcc cccccacca cctcgttccc ctttttatct ggactccctg
5100
gaggaaaagc ggaagcggca gcggtctgaa cgctggaac ggattttcca acttagtgag
5160
gtcatgggg ccctggcacc tgtgtatggg actgaagtcc tggatttctg taccctgcc
5220
caacctgttg ccagcccat cggccctcgt tctcctggcc ccagccacc caccttttgg
5280
acttataccg aggtgcccc cgggctgta ctgtttccc agcagcgact agaccagctg
5340
tcagaaatca ttgagaggtt catctttgtc atgcctcctg tggaggcacc tccccctcc
5400
ctgcatgcct gccaccacc tccttggctg gcccacgtc aggcagcctt ccaggagcaa
5460
ttggcctctg agctctggcc ccgggctcgt cctttgcacc gtattgtgtg taacatgcgc
5520
accagttcc ctgacttaag actcatccag tatgattgag gaaagttgca gacgttggca
5580
gtgctgttg ggcagctcaa ggcagagggc caccgagtgc tcattctcac ccagatgacc
5640

cgaatgctgg atgtattgga gcagtttctc acctaccatg gccatctcta cctgcgcctg
5700
gatggatcta ctagagtga acagagacag gccttgatgg aacggttcaa tgcagacaaa
5760
cgcatattct gcttcatacct ttcaactcgg agtgggggtg tgggcgtgaa cctgacagga
5820
gcagacactg ttgtttttta tgacagcgac tggaatccca ccatggatgc tcaggcccag
5880
gaccgctgtc accgaattgg ccagacccgg gatgtccaca tatataggct tatcagttaa
5940
cggacagtgg aggagaacat cctaaaaaag gcaaatacaga agagaatgtt gggggacatg
6000
gccattgagg gaggcaactt caccacagcc tatttcaaac agcagaccat ccgagagctg
6060
tttgatatgc ccctggagga accttctagc tcatccgtgc cctctgcccc tgaagaggag
6120
gaagagactg tggccagcaa gcagactcat attctggagc aggcattgtg tcgggcagaa
6180
gatgaagagg atatccgtgc agccaccag gccaaaggctg aacagggtggc tgagcttgca
6240
gaatttaatg agaacgatgg gtttctgtc ggtgaggag aggaagctgg ccggcctggg
6300
gctgaggatg aggagatgtc ccgggctgag caggaaattg ctgccctcgt agaacagctg
6360
acccccattg agcgtatgc catgaaattc ctggaggcct cactggagga ggtgagccga
6420
gaggagctca aacaggcaga agagcaagtg gaagctgcc gcaaagacct ggaccaagcc
6480
aaggaggagg tgttccgcct accccaagag gaggaggagg ggccgggggc tggggatgag
6540
agttcctgtg ggactggtg aggcacccac cggcgcagta aaaaggccaa agcccctgag
6600
aggccgggga ctctgtcag tgagcgtctt cgtggagccc gggctgagac tcaaggggca
6660
aaccacactc ctgtcatatc cgcccatcaa actcgcagca ccaccacacc accccgctgc
6720
agtccctgca gggagcgagt tcccaggcca gcacctagga ctcgaccac tccagcttca
6780
gctccggctg caattcctgc ccttgctcct gtcccagttt ctgccccagt acccatttca
6840
gccccaaatc caataacat tctcctgtc catatcttgc cttctctcc cctccttca
6900
cagattcctc cttgttcttc tctgctgc acccctctc ctgctgtac cctccacca
6960
gtcatacac cgctccagc ccaaacctgt cttgtaactc cttctctcc tctcttgctt
7020
ggtccacctt ctgtgcccac ctctgcctca gtcactaatc tccccttggg cttgaggcct
7080
gaggcagagc tgtgtgcca ggcattggca tctccagagt cctggagct ggcttctgtg
7140
gccagttcag aaacctctc actttctctt gtgcccccta aagatctgtt gccagttgct
7200
gtggagatcc tgctgtgtc agagaagaac ctttctctca ccccttctgc acccagcctg
7260

accttggagg ctggcagcat ccccaatggt caagagcagg aggcaccaga ttctgtgag
7320
gggaccaccc ttacagtgtt gcctgaaggt gaggagtgtc ccctgtgtgt gagtgagagc
7380
aatggcctgg agctcccacc ctcagcagca tctgatgagc cacttcagga gccactggag
7440
gctgacagga cctcggaaga gctgacagag gccaaagacc caacctccag cccagagaag
7500
ccacaggaac tcgttacagc tgagggtgca gctccatcca cctcatcttc agccacttcc
7560
tcgcctgagg gtccctcacc tgcccgacct cctcggcgtc gcaccagtgc tgatgtggaa
7620
attaggggtc aagggtactg tcggccagga caaccaccag gcccacaaagt gcttcgaaag
7680
ctgccaggac ggctggtaac tgtggtagag gaaaaggaac tggcgccgag gggcgccag
7740
cagcggggag ctgccagcac ccagtgacct ggggtctctg agactagtgc cagcccgga
7800
agccgtctg tcgcagcat gtcaggcca gaatcctccc ctcccattgg tgggcctgt
7860
gaagctgtc ctccatctc actgccact ccacccagc agcccttcat tgctcgccgt
7920
cacattgagc tgggggtgac tgggtggtggc agcccgaga atggagacgg agcactgtc
7980
gccatcacc cactgtgtt gaaacgtcgg agggggaggc ccccaagaa gaacaggtct
8040
ccagcagatg ctgggagagg tgtggatgag gcacctcat ccaccttgaa gggaaaaacc
8100
aatggggctg acccagtcct tgggcctgag accctaattg ttgcagatcc tgcctggaa
8160
ccacagctta ttctgggccc ccagcctctt ggacccagc cagttcacag acccaatccc
8220
ctcctgtcac ctgtggagaa aagaaggcga ggacgacccc ctaaagcacg agatttggcc
8280
atcctggga ccatttctc tgcaggggat ggcaactccg aaagtcggac acagccaccc
8340
ccacacccat caccctaacc ccactccca ccactgctag tttgtccac tgctactgtt
8400
gccaaactg tcaccactgt caccatttca acgtccccc ccaaacggaa gaggggcca
8460
cctcccaaga atcctccatc acctcgcccc agccagctcc ccgtcttgga ccgtgacagc
8520
acttctgttc tcgagagctg tggattgggg aggcgacggc aaccccaggg ccaaggggag
8580
agtggggta gttcctctga tgaggatgga agccgcccc tcacccgcct ggccgcctt
8640
cggcttgaag cagaaggaat gcgaggacgg aagagtggag ggtccatggt ggtggctgta
8700
attcaggatg acctggactt agcagatagc gggccaggcg ggttggaatt gacaccacct
8760
gtggtctcac taaccccaaa actgcgctcg acccggtgc gtccagggtc tctagtcccc
8820
ccactagaga ctgagaagtt gcctcgcaaa cgagcagggg cccagttgg tgggagtcct
8880

gggctggcaa agcggggccg cctacagccc ccaagtcccc tggggcctga gggttcagta
8940
gaggagtctg aggctgaagc ctcaggtagg gaggaggaag gggatgggac cccacgccga
9000
cgtcctggcc cccgccggct tgttgggacc accaaccaag gggaccagcg catcctgcgc
9060
agcagcgccc ctccctccct ggctggccct gctgttagtc acagaggccg caaggccaag
9120
acgtgagtgg gctgcccctc cacctaggct ttccaccgtg gccactccct ccatgaccag
9180
gcctgactct gttaaccact acttgaagtc ttgaggggga aagcctccag ggagacatag
9240
gggccttctc ccttcttccc accaaagtag ggggtaggca actgggtgtc atggaaatgg
9300
ggatcatcac agtccccttc cccttcaccc cacgtggctg ggcagtgtta agggtaggcaa
9360
gatagtctct gtccccaccc ccttgacttt gattccccag ctgtctttca cacagcccc
9420
cacccttagg ggaaggggga ggggcttctc tacaatgagg ttttttctt ttttttttt
9480
ttttaagaag aaaaaataat aaacttagtt tctgtatgag catccgcgta aggaggcttc
9540
tgattttctg gtctgggtgga ggggtgggtg ggaacttggg catcgttttt ctccctccctc
9600
ttgttcttgc aaagatccta gcacctgac tctagcccag gactatatgt tccaggcaga
9660
aatctaccca agaagaggga agattgggtga atttgatgtg gtaggggtgcc tttccccagt
9720
cagtttgaag tcacagatat ccttttctc tcatctcttt tccctcggtt cctagacgtt
9780
cctcggaagt ctttgatgcc tcagaccttt cctttttatc cctcttgctc aggtgcttcc
9840
tttcacaact ttttccagag ggcaggcgct ctagctccag ttgctccatc ccttgggccc
9900
tcccctggct cttcatctag ccaaactggg ttgagtcagc cacaccctt cccagctccc
9960
tgggctcttc acgtgggtggc tggccactca accccacccc tgggcttggc ttggagccct
10020
gagtcagctc catcaccacc caagccaaac caaagctgag gcaggagccg aaactcagag
10080
tccttcaagg cctatagcca ggtgatggag gacgaggaga aggcagtgga gatcttgggc
10140
aacacggaag ctgctcatcc tccatcccc atccgctgct gctggctccg cctccgctgc
10200
ttggcagcta ctagcattat ctgtggctgc tcttgctgg gagtcattgg tctgggtgtt
10260
gccatcaagg cggaagagcg gcataaagca ggccgggtccg aggaggcagt gcgctggggg
10320
ggccgggccc ggaaactcat cctggccagc tttgctgtct ggcttgctgt cctcattctg
10380
ggctccctgc tgetgtgggt gctctctac gccatcgctc aggtgagtg accctggatg
10440
gcctctgctg agagccagcc gagacctcct ggatcctgca atgcggcatt gctaagggtcc
10500

tgtgacagca gtggttgga ggatcctggt tggaaggatg gggactctct caaggggctt
 10560
 tggaagagct cttctagccc tttataaaag gagggcagca gctgagactg atgagaggag
 10620
 ggcagcctgc tctgttcttt cagggccccc caccctcatc tccctaccc tagccaccc
 10680
 tagggcctct acccagcggg aggggttgaa gaccaggcct ggttttatta gaattcattt
 10740
 tgtaataaaa gcctttttta gtggtaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 10795

<210> 1990

<211> 2971

<212> PRT

<213> Homo sapiens

<400> 1990

Met	Ala	Lys	Asp	Val	Arg	Gln	Phe	Trp	Ser	Asn	Val	Glu	Lys	Val	Val
1				5					10					15	
Gln	Phe	Lys	Gln	Gln	Ser	Arg	Leu	Glu	Glu	Lys	Arg	Lys	Lys	Ala	Leu
			20					25					30		
Asp	Leu	His	Leu	Asp	Phe	Ile	Val	Gly	Gln	Thr	Glu	Lys	Tyr	Ser	Asp
		35					40					45			
Leu	Leu	Ser	Gln	Ser	Leu	Asn	Gln	Pro	Leu	Thr	Ser	Ser	Lys	Ala	Gly
		50				55					60				
Ser	Ser	Pro	Cys	Leu	Gly	Ser	Ser	Ser	Ala	Ala	Ser	Ser	Pro	Pro	Pro
65					70				75					80	
Pro	Ala	Ser	Arg	Leu	Asp	Asp	Glu	Asp	Gly	Asp	Phe	Gln	Pro	Gln	Glu
				85				90						95	
Asp	Glu	Glu	Glu	Asp	Asp	Glu	Glu	Thr	Ile	Glu	Val	Glu	Glu	Gln	Gln
			100					105					110		
Glu	Gly	Asn	Asp	Ala	Glu	Ala	Gln	Arg	Arg	Glu	Ile	Glu	Leu	Leu	Arg
		115					120					125			
Arg	Glu	Gly	Glu	Leu	Pro	Leu	Glu	Glu	Leu	Leu	Arg	Ser	Leu	Pro	Pro
		130				135					140				
Gln	Leu	Leu	Glu	Gly	Pro	Ser	Ser	Pro	Ser	Gln	Thr	Pro	Ser	Ser	His
145					150					155				160	
Asp	Ser	Asp	Thr	Arg	Asp	Gly	Pro	Glu	Glu	Gly	Ala	Glu	Glu	Glu	Pro
			165					170						175	
Pro	Gln	Val	Leu	Glu	Ile	Lys	Pro	Pro	Pro	Ser	Ala	Val	Thr	Gln	Arg
		180						185					190		
Asn	Lys	Gln	Pro	Trp	His	Pro	Asp	Glu	Asp	Asp	Glu	Glu	Phe	Thr	Ala
		195				200					205				
Asn	Glu	Glu	Glu	Ala	Glu	Asp	Glu	Glu	Asp	Thr	Ile	Ala	Ala	Glu	Glu
		210				215					220				
Gln	Leu	Glu	Gly	Glu	Val	Asp	His	Ala	Met	Glu	Leu	Ser	Glu	Leu	Ala
225					230					235				240	
Arg	Glu	Gly	Glu	Leu	Ser	Met	Glu	Glu	Leu	Gln	Gln	Tyr	Ala	Gly	
			245					250						255	
Ala	Tyr	Ala	Pro	Gly	Ser	Gly	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Asp	Glu
			260					265					270		
Val	Asp	Ala	Asn	Ser	Ser	Asp	Cys	Glu	Pro	Glu	Gly	Pro	Val	Glu	Ala
		275					280					285			
Glu	Glu	Pro	Pro	Gln	Glu	Asp	Ser	Ser	Ser	Gln	Ser	Asp	Ser	Val	Glu

290	295	300
Asp Arg Ser Glu Asp Glu Glu Asp Glu His Ser Glu Glu Glu Glu Thr		
305	310	315
Ser Gly Ser Ser Ala Ser Glu Glu Ser Glu Ser Glu Glu Ser Glu Asp		
	325	330
Ala Gln Ser Gln Ser Gln Ala Asp Glu Glu Glu Glu Asp Asp Asp Phe		
	340	345
Gly Val Glu Tyr Leu Leu Ala Arg Asp Glu Glu Gln Ser Glu Ala Asp		
	355	360
Ala Gly Ser Gly Pro Pro Thr Pro Gly Pro Thr Thr Leu Gly Pro Lys		
	370	375
Lys Glu Ile Thr Asp Ile Ala Ala Ala Ala Glu Ser Leu Gln Pro Lys		
385	390	395
Gly Tyr Thr Leu Ala Thr Thr Gln Val Lys Thr Pro Ile Pro Leu Leu		
	405	410
Leu Arg Gly Gln Leu Arg Glu Tyr Gln His Ile Gly Leu Asp Trp Leu		
	420	425
Val Thr Met Tyr Glu Lys Lys Leu Asn Gly Ile Leu Ala Asp Glu Met		
	435	440
Gly Leu Gly Lys Thr Ile Gln Thr Ile Ser Leu Leu Ala His Leu Ala		
	450	455
Cys Glu Lys Gly Asn Trp Gly Pro His Leu Ile Ile Val Pro Thr Ser		
465	470	475
Val Met Leu Asn Trp Glu Met Glu Leu Lys Arg Trp Cys Pro Ser Phe		
	485	490
Lys Ile Leu Thr Tyr Tyr Gly Ala Gln Lys Glu Arg Lys Leu Lys Arg		
	500	505
Gln Gly Trp Thr Lys Pro Asn Ala Phe His Val Cys Ile Thr Ser Tyr		
	515	520
Lys Leu Val Leu Gln Asp His Gln Ala Phe Arg Arg Lys Asn Trp Arg		
	530	535
Tyr Leu Ile Leu Asp Glu Ala Gln Asn Ile Lys Asn Phe Lys Ser Gln		
545	550	555
Arg Trp Gln Ser Leu Leu Asn Phe Asn Ser Gln Arg Arg Leu Leu Leu		
	565	570
Thr Gly Thr Pro Leu Gln Asn Ser Leu Met Glu Leu Trp Ser Leu Met		
	580	585
His Phe Leu Met Pro His Val Phe Gln Ser His Arg Glu Phe Lys Glu		
	595	600
Trp Phe Ser Asn Pro Leu Thr Gly Met Ile Glu Gly Ser Gln Glu Tyr		
	610	615
Asn Glu Gly Leu Val Lys Arg Leu His Lys Val Leu Arg Pro Phe Leu		
625	630	635
Leu Arg Arg Val Lys Val Asp Val Glu Lys Gln Met Pro Lys Lys Tyr		
	645	650
Glu His Val Ile Arg Cys Arg Leu Ser Lys Arg Gln Arg Cys Leu Tyr		
	660	665
Asp Asp Phe Met Ala Gln Thr Thr Thr Lys Glu Thr Leu Ala Thr Gly		
	675	680
His Phe Met Ser Val Ile Asn Ile Leu Met Gln Leu Arg Lys Val Cys		
	690	695
Asn His Pro Asn Leu Phe Asp Pro Arg Pro Val Thr Ser Pro Phe Ile		
705	710	715
Thr Pro Gly Ile Cys Phe Ser Thr Ala Ser Leu Val Leu Arg Ala Thr		

725																730				735			
Asp	Val	His	Pro	Leu	Gln	Arg	Ile	Asp	Met	Gly	Arg	Phe	Asp	Leu	Ile								
740				745				750															
Gly	Leu	Glu	Gly	Arg	Val	Ser	Arg	Tyr	Glu	Ala	Asp	Thr	Phe	Leu	Pro								
755				760				765															
Arg	His	Arg	Leu	Ser	Arg	Arg	Val	Leu	Leu	Glu	Val	Ala	Thr	Ala	Pro								
770				775				780															
Asp	Pro	Pro	Pro	Arg	Pro	Lys	Pro	Val	Lys	Met	Lys	Val	Asn	Arg	Met								
785				790				795				800											
Leu	Gln	Pro	Val	Pro	Lys	Gln	Glu	Gly	Arg	Thr	Val	Val	Val	Val	Asn								
805				810				815															
Asn	Pro	Arg	Ala	Pro	Leu	Gly	Pro	Val	Pro	Val	Arg	Pro	Pro	Pro	Gly								
820				825				830															
Pro	Glu	Leu	Ser	Ala	Gln	Pro	Thr	Pro	Gly	Pro	Val	Pro	Gln	Val	Leu								
835				840				845															
Pro	Ala	Ser	Leu	Met	Val	Ser	Ala	Ser	Pro	Ala	Gly	Pro	Pro	Leu	Ile								
850				855				860															
Pro	Ala	Ser	Arg	Pro	Pro	Gly	Pro	Val	Leu	Leu	Pro	Pro	Leu	Gln	Pro								
865				870				875				880											
Asn	Ser	Gly	Ser	Leu	Pro	Gln	Val	Leu	Pro	Ser	Pro	Leu	Gly	Val	Leu								
885				890				895															
Ser	Gly	Thr	Ser	Arg	Pro	Pro	Thr	Pro	Thr	Leu	Ser	Leu	Lys	Pro	Thr								
900				905				910															
Pro	Pro	Ala	Pro	Val	Arg	Leu	Ser	Pro	Ala	Pro	Pro	Pro	Gly	Pro	Ser								
915				920				925															
Ser	Leu	Leu	Lys	Pro	Leu	Thr	Val	Pro	Pro	Gly	Tyr	Thr	Phe	Pro	Pro								
930				935				940															
Ala	Ala	Ala	Thr	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Ala	Thr	Thr	Thr								
945				950				955				960											
Ala	Val	Pro	Ala	Pro	Thr	Pro	Ala	Pro	Gln	Arg	Leu	Ile	Leu	Ser	Pro								
965				970				975															
Asp	Met	Gln	Ala	Arg	Leu	Pro	Ser	Gly	Glu	Val	Val	Ser	Ile	Gly	Gln								
980				985				990															
Leu	Ala	Ser	Leu	Ala	Gln	Arg	Pro	Val	Ala	Asn	Ala	Gly	Gly	Ser	Lys								
995				1000				1005															
Pro	Leu	Thr	Phe	Gln	Ile	Gln	Gly	Asn	Lys	Leu	Thr	Leu	Thr	Gly	Ala								
1010				1015				1020															
Gln	Val	Arg	Gln	Leu	Ala	Val	Gly	Gln	Pro	Arg	Pro	Leu	Gln	Met	Pro								
1025				1030				1035				1040											
Pro	Thr	Met	Val	Asn	Asn	Thr	Gly	Val	Val	Lys	Ile	Val	Val	Arg	Gln								
1045				1050				1055															
Ala	Pro	Arg	Asp	Gly	Leu	Thr	Pro	Val	Pro	Pro	Leu	Ala	Pro	Ala	Pro								
1060				1065				1070															
Arg	Pro	Pro	Ser	Ser	Gly	Leu	Pro	Ala	Val	Leu	Asn	Pro	Arg	Pro	Thr								
1075				1080				1085															
Leu	Thr	Pro	Gly	Arg	Leu	Pro	Thr	Pro	Leu	Gly	Thr	Ala	Arg	Ala									
1090				1095				1100															
Pro	Met	Pro	Thr	Pro	Thr	Leu	Val	Arg	Pro	Leu	Lys	Leu	Val	His									
1105				1110				1115				1120											
Ser	Pro	Ser	Pro	Glu	Val	Ser	Ala	Ser	Ala	Pro	Gly	Ala	Ala	Pro	Leu								
1125				1130				1135															
Thr	Ile	Ser	Ser	Pro	Leu	His	Val	Pro	Ser	Ser	Leu	Pro	Gly	Pro	Ala								
1140				1145				1150															
Ser	Ser	Pro	Met	Pro	Ile	Pro	Asn	Ser	Ser	Pro	Leu	Ala	Ser	Pro	Val								

1155	1160	1165
Ser Ser Thr Val Ser Val Pro Leu Ser Ser Ser Leu Pro Ile Ser Val		
1170	1175	1180
Pro Thr Thr Leu Pro Ala Pro Ala Ser Ala Pro Leu Thr Ile Pro Ile		
1185	1190	1195
Ser Ala Pro Leu Thr Val Ser Ala Ser Gly Pro Ala Leu Leu Thr Ser		
1205	1210	1215
Val Thr Pro Pro Leu Ala Pro Val Val Pro Ala Ala Pro Gly Pro Pro		
1220	1225	1230
Ser Leu Ala Pro Ser Gly Ala Ser Pro Ser Ala Ser Ala Leu Thr Leu		
1235	1240	1245
Gly Leu Ala Thr Ala Pro Ser Leu Ser Ser Ser Gln Thr Pro Gly His		
1250	1255	1260
Pro Leu Leu Leu Ala Pro Thr Ser Ser His Val Pro Gly Leu Asn Ser		
1265	1270	1275
Thr Val Ala Pro Ala Cys Ser Pro Val Leu Val Pro Ala Ser Ala Leu		
1285	1290	1295
Ala Ser Pro Phe Pro Ser Ala Pro Asn Pro Ala Pro Ala Gln Ala Ser		
1300	1305	1310
Leu Leu Ala Pro Ala Ser Ser Ala Ser Gln Ala Leu Ala Thr Pro Leu		
1315	1320	1325
Ala Pro Met Ala Ala Pro Gln Thr Ala Ile Leu Ala Pro Ser Pro Ala		
1330	1335	1340
Pro Pro Leu Ala Pro Leu Pro Val Leu Ala Pro Ser Pro Gly Ala Ala		
1345	1350	1355
Pro Val Leu Ala Ser Ser Gln Thr Pro Val Pro Val Met Ala Pro Ser		
1365	1370	1375
Ser Thr Pro Gly Thr Ser Leu Ala Ser Ala Ser Pro Val Pro Ala Pro		
1380	1385	1390
Thr Pro Val Leu Ala Pro Ser Ser Thr Gln Thr Met Leu Pro Ala Pro		
1395	1400	1405
Val Pro Ser Pro Leu Pro Ser Pro Ala Ser Thr Gln Thr Leu Ala Leu		
1410	1415	1420
Ala Pro Ala Leu Ala Pro Thr Leu Gly Gly Ser Ser Pro Ser Gln Thr		
1425	1430	1435
Leu Ser Leu Gly Thr Gly Asn Pro Gln Gly Pro Phe Pro Thr Gln Thr		
1445	1450	1455
Leu Ser Leu Thr Pro Ala Ser Ser Leu Val Pro Thr Pro Ala Gln Thr		
1460	1465	1470
Leu Ser Leu Ala Pro Gly Pro Pro Leu Gly Pro Thr Gln Thr Leu Ser		
1475	1480	1485
Leu Ala Pro Ala Pro Pro Leu Ala Pro Ala Ser Pro Val Gly Pro Ala		
1490	1495	1500
Pro Ala His Thr Leu Thr Leu Ala Pro Ala Ser Ser Ser Ala Ser Leu		
1505	1510	1515
Leu Ala Pro Ala Ser Val Gln Thr Leu Thr Leu Ser Pro Ala Pro Val		
1525	1530	1535
Pro Thr Leu Gly Pro Ala Ala Ala Gln Thr Leu Ala Leu Ala Pro Ala		
1540	1545	1550
Ser Thr Gln Ser Pro Ala Ser Gln Ala Ser Ser Leu Val Val Ser Ala		
1555	1560	1565
Ser Gly Ala Ala Pro Leu Pro Val Thr Met Val Ser Arg Leu Pro Val		
1570	1575	1580
Ser Lys Asp Glu Pro Asp Thr Leu Thr Leu Arg Ser Gly Pro Pro Ser		

1585 1590 1595 1600
 Pro Pro Ser Thr Ala Thr Ser Phe Gly Gly Pro Arg Pro Arg Arg Gln
 1605 1610 1615
 Pro Pro Pro Pro Pro Arg Ser Pro Phe Tyr Leu Asp Ser Leu Glu Glu
 1620 1625 1630
 Lys Arg Lys Arg Gln Arg Ser Glu Arg Leu Glu Arg Ile Phe Gln Leu
 1635 1640 1645
 Ser Glu Ala His Gly Ala Leu Ala Pro Val Tyr Gly Thr Glu Val Leu
 1650 1655 1660
 Asp Phe Cys Thr Leu Pro Gln Pro Val Ala Ser Pro Ile Gly Pro Arg
 1665 1670 1675 1680
 Ser Pro Gly Pro Ser His Pro Thr Phe Trp Thr Tyr Thr Glu Ala Ala
 1685 1690 1695
 His Arg Ala Val Leu Phe Pro Gln Gln Arg Leu Asp Gln Leu Ser Glu
 1700 1705 1710
 Ile Ile Glu Arg Phe Ile Phe Val Met Pro Pro Val Glu Ala Pro Pro
 1715 1720 1725
 Pro Ser Leu His Ala Cys His Pro Pro Pro Trp Leu Ala Pro Arg Gln
 1730 1735 1740
 Ala Ala Phe Gln Glu Gln Leu Ala Ser Glu Leu Trp Pro Arg Ala Arg
 1745 1750 1755 1760
 Pro Leu His Arg Ile Val Cys Asn Met Arg Thr Gln Phe Pro Asp Leu
 1765 1770 1775
 Arg Leu Ile Gln Tyr Asp Cys Gly Lys Leu Gln Thr Leu Ala Val Leu
 1780 1785 1790
 Leu Arg Gln Leu Lys Ala Glu Gly His Arg Val Leu Ile Phe Thr Gln
 1795 1800 1805
 Met Thr Arg Met Leu Asp Val Leu Glu Gln Phe Leu Thr Tyr His Gly
 1810 1815 1820
 His Leu Tyr Leu Arg Leu Asp Gly Ser Thr Arg Val Glu Gln Arg Gln
 1825 1830 1835 1840
 Ala Leu Met Glu Arg Phe Asn Ala Asp Lys Arg Ile Phe Cys Phe Ile
 1845 1850 1855
 Leu Ser Thr Arg Ser Gly Gly Val Gly Val Asn Leu Thr Gly Ala Asp
 1860 1865 1870
 Thr Val Val Phe Tyr Asp Ser Asp Trp Asn Pro Thr Met Asp Ala Gln
 1875 1880 1885
 Ala Gln Asp Arg Cys His Arg Ile Gly Gln Thr Arg Asp Val His Ile
 1890 1895 1900
 Tyr Arg Leu Ile Ser Glu Arg Thr Val Glu Glu Asn Ile Leu Lys Lys
 1905 1910 1915 1920
 Ala Asn Gln Lys Arg Met Leu Gly Asp Met Ala Ile Glu Gly Gly Asn
 1925 1930 1935
 Phe Thr Thr Ala Tyr Phe Lys Gln Gln Thr Ile Arg Glu Leu Phe Asp
 1940 1945 1950
 Met Pro Leu Glu Glu Pro Ser Ser Ser Ser Val Pro Ser Ala Pro Glu
 1955 1960 1965
 Glu Glu Glu Glu Thr Val Ala Ser Lys Gln Thr His Ile Leu Glu Gln
 1970 1975 1980
 Ala Leu Cys Arg Ala Glu Asp Glu Glu Asp Ile Arg Ala Ala Thr Gln
 1985 1990 1995 2000
 Ala Lys Ala Glu Gln Val Ala Glu Leu Ala Glu Phe Asn Glu Asn Asp
 2005 2010 2015
 Gly Phe Pro Ala Gly Glu Gly Glu Glu Ala Gly Arg Pro Gly Ala Glu

	2020		2025		2030										
Asp	Glu	Glu	Met	Ser	Arg	Ala	Glu	Gln	Glu	Ile	Ala	Ala	Leu	Val	Glu
	2035		2040		2045										
Gln	Leu	Thr	Pro	Ile	Glu	Arg	Tyr	Ala	Met	Lys	Phe	Leu	Glu	Ala	Ser
	2050		2055		2060										
Leu	Glu	Glu	Val	Ser	Arg	Glu	Glu	Leu	Lys	Gln	Ala	Glu	Glu	Gln	Val
2065			2070		2075									2080	
Glu	Ala	Ala	Arg	Lys	Asp	Leu	Asp	Gln	Ala	Lys	Glu	Glu	Val	Phe	Arg
			2085		2090									2095	
Leu	Pro	Gln	Glu	Glu	Glu	Glu	Gly	Pro	Gly	Ala	Gly	Asp	Glu	Ser	Ser
	2100		2105		2110										
Cys	Gly	Thr	Gly	Gly	Gly	Thr	His	Arg	Arg	Ser	Lys	Lys	Ala	Lys	Ala
	2115		2120		2125										
Pro	Glu	Arg	Pro	Gly	Thr	Arg	Val	Ser	Glu	Arg	Leu	Arg	Gly	Ala	Arg
	2130		2135		2140										
Ala	Glu	Thr	Gln	Gly	Ala	Asn	His	Thr	Pro	Val	Ile	Ser	Ala	His	Gln
2145			2150		2155									2160	
Thr	Arg	Ser	Thr	Thr	Thr	Pro	Pro	Arg	Cys	Ser	Pro	Ala	Arg	Glu	Arg
			2165		2170									2175	
Val	Pro	Arg	Pro	Ala	Pro	Arg	Pro	Arg	Pro	Thr	Pro	Ala	Ser	Ala	Pro
	2180		2185		2190										
Ala	Ala	Ile	Pro	Ala	Leu	Val	Pro	Val	Pro	Val	Ser	Ala	Pro	Val	Pro
	2195		2200		2205										
Ile	Ser	Ala	Pro	Asn	Pro	Ile	Thr	Ile	Leu	Pro	Val	His	Ile	Leu	Pro
	2210		2215		2220										
Ser	Pro	Pro	Pro	Pro	Ser	Gln	Ile	Pro	Pro	Cys	Ser	Ser	Pro	Ala	Cys
2225			2230		2235									2240	
Thr	Pro	Pro	Pro	Ala	Cys	Thr	Pro	Pro	Pro	Ala	His	Thr	Pro	Pro	Pro
			2245		2250									2255	
Ala	Gln	Thr	Cys	Leu	Val	Thr	Pro	Ser	Ser	Pro	Leu	Leu	Leu	Gly	Pro
	2260		2265		2270										
Pro	Ser	Val	Pro	Ile	Ser	Ala	Ser	Val	Thr	Asn	Leu	Pro	Leu	Gly	Leu
	2275		2280		2285										
Arg	Pro	Glu	Ala	Glu	Leu	Cys	Ala	Gln	Ala	Leu	Ala	Ser	Pro	Glu	Ser
	2290		2295		2300										
Leu	Glu	Leu	Ala	Ser	Val	Ala	Ser	Ser	Glu	Thr	Ser	Ser	Leu	Ser	Leu
2305			2310		2315									2320	
Val	Pro	Pro	Lys	Asp	Leu	Leu	Pro	Val	Ala	Val	Glu	Ile	Leu	Pro	Val
			2325		2330									2335	
Ser	Glu	Lys	Asn	Leu	Ser	Leu	Thr	Pro	Ser	Ala	Pro	Ser	Leu	Thr	Leu
	2340		2345		2350										
Glu	Ala	Gly	Ser	Ile	Pro	Asn	Gly	Gln	Glu	Gln	Glu	Ala	Pro	Asp	Ser
	2355		2360		2365										
Ala	Glu	Gly	Thr	Thr	Leu	Thr	Val	Leu	Pro	Glu	Gly	Glu	Glu	Leu	Pro
	2370		2375		2380										
Leu	Cys	Val	Ser	Glu	Ser	Asn	Gly	Leu	Glu	Leu	Pro	Pro	Ser	Ala	Ala
2385			2390		2395									2400	
Ser	Asp	Glu	Pro	Leu	Gln	Glu	Pro	Leu	Glu	Ala	Asp	Arg	Thr	Ser	Glu
			2405		2410									2415	
Glu	Leu	Thr	Glu	Ala	Lys	Thr	Pro	Thr	Ser	Ser	Pro	Glu	Lys	Pro	Gln
	2420		2425		2430										
Glu	Leu	Val	Thr	Ala	Glu	Val	Ala	Ala	Pro	Ser	Thr	Ser	Ser	Ser	Ala
	2435		2440		2445										
Thr	Ser	Ser	Pro	Glu	Gly	Pro	Ser	Pro	Ala	Arg	Pro	Pro	Arg	Arg	Arg

	2450					2455					2460					
Thr	Ser	Ala	Asp	Val	Glu	Ile	Arg	Gly	Gln	Gly	Thr	Gly	Arg	Pro	Gly	
2465						2470				2475					2480	
Gln	Pro	Pro	Gly	Pro	Lys	Val	Leu	Arg	Lys	Leu	Pro	Gly	Arg	Leu	Val	
					2485				2490						2495	
Thr	Val	Val	Glu	Glu	Lys	Glu	Leu	Val	Arg	Arg	Arg	Arg	Gln	Gln	Arg	
					2500				2505						2510	
Gly	Ala	Ala	Ser	Thr	Leu	Val	Pro	Gly	Val	Ser	Glu	Thr	Ser	Ala	Ser	
					2515				2520						2525	
Pro	Gly	Ser	Pro	Ser	Val	Arg	Ser	Met	Ser	Gly	Pro	Glu	Ser	Ser	Pro	
					2530				2535						2540	
Pro	Ile	Gly	Gly	Pro	Cys	Glu	Ala	Ala	Pro	Ser	Ser	Ser	Leu	Pro	Thr	
2545					2550				2555						2560	
Pro	Pro	Gln	Gln	Pro	Phe	Ile	Ala	Arg	Arg	His	Ile	Glu	Leu	Gly	Val	
					2565				2570						2575	
Thr	Gly	Gly	Gly	Ser	Pro	Glu	Asn	Gly	Asp	Gly	Ala	Leu	Leu	Ala	Ile	
					2580				2585						2590	
Thr	Pro	Pro	Ala	Val	Lys	Arg	Arg	Arg	Gly	Arg	Pro	Pro	Lys	Lys	Asn	
					2595				2600						2605	
Arg	Ser	Pro	Ala	Asp	Ala	Gly	Arg	Gly	Val	Asp	Glu	Ala	Pro	Ser	Ser	
					2610				2615						2620	
Thr	Leu	Lys	Gly	Lys	Thr	Asn	Gly	Ala	Asp	Pro	Val	Pro	Gly	Pro	Glu	
2625					2630				2635						2640	
Thr	Leu	Ile	Val	Ala	Asp	Pro	Val	Leu	Glu	Pro	Gln	Leu	Ile	Pro	Gly	
					2645				2650						2655	
Pro	Gln	Pro	Leu	Gly	Pro	Gln	Pro	Val	His	Arg	Pro	Asn	Pro	Leu	Leu	
					2660				2665						2670	
Ser	Pro	Val	Glu	Lys	Arg	Arg	Arg	Gly	Arg	Pro	Pro	Lys	Ala	Arg	Asp	
					2675				2680						2685	
Leu	Pro	Ile	Pro	Gly	Thr	Ile	Ser	Ser	Ala	Gly	Asp	Gly	Asn	Ser	Glu	
					2690				2695						2700	
Ser	Arg	Thr	Gln	Pro	Pro	Pro	His	Pro	Ser	Pro	Leu	Thr	Pro	Leu	Pro	
2705					2710				2715						2720	
Pro	Leu	Leu	Val	Cys	Pro	Thr	Ala	Thr	Val	Ala	Asn	Thr	Val	Thr	Thr	
					2725				2730						2735	
Val	Thr	Ile	Ser	Thr	Ser	Pro	Pro	Lys	Arg	Lys	Arg	Gly	Arg	Pro	Pro	
					2740				2745						2750	
Lys	Asn	Pro	Pro	Ser	Pro	Arg	Pro	Ser	Gln	Leu	Pro	Val	Leu	Asp	Arg	
					2755				2760						2765	
Asp	Ser	Thr	Ser	Val	Leu	Glu	Ser	Cys	Gly	Leu	Gly	Arg	Arg	Arg	Gln	
					2770				2775						2780	
Pro	Gln	Gly	Gln	Gly	Glu	Ser	Glu	Gly	Ser	Ser	Ser	Asp	Glu	Asp	Gly	
2785					2790				2795						2800	
Ser	Arg	Pro	Leu	Thr	Arg	Leu	Ala	Arg	Leu	Arg	Leu	Glu	Ala	Glu	Gly	

	2885		2890		2895
Arg	Leu	Gln	Pro	Pro	Ser
	2900		2905		2910
Ser	Glu	Ala	Glu	Ala	Ser
	2915		2920		2925
Arg	Arg	Arg	Pro	Gly	Pro
	2930		2935		2940
Asp	Gln	Arg	Ile	Leu	Arg
	2945		2950		2955
Ala	Val	Ser	His	Arg	Gly
	2965		2970		

<210> 1991

<211> 3102

<212> DNA

<213> Homo sapiens

<400> 1991

```

nntcctttgc aggcctttttt cccccttccc ccctcccccg acctcctttg cgtacaagaa
60
gtgaagagtt tgggggaaaa gggacacatg ctctgcttct gcagagaaat gcttctcagg
120
gggttgact gttctgtaaa ccccactcc cgcgcagcgc aggtgttttg aactccagct
180
gagggcctgc tggtgctgg gaaactccta ggcagcagag gccacgact acttctctct
240
gagtgccgtt cagtggcctg tgtccaggct ctgaagggtt ccaagaagct ggtgctgtct
300
gtgtactcag cagggcgcat ccctgggggc tacgtcacca accacatcta cacctgggtg
360
gacccgcagg gccgcagcat ctccccaccc tcgggcctgc ccagcccca cgggtggtgcc
420
ctgaggcagc aggaggggtga ccggaggagc accctgcacc tcctgcaagg aggggatgag
480
aaaaaggtga acctggtgct gggggacggc cggtccttg gcctcacgat ccgtggggga
540
gctgagtacg gccttgcat ttacatcact ggcgtggacc caggctctga agcagaaggc
600
agcgggctca aggttgggga ccagattcta gaagtgaatg ggcggagctt tctcaacatc
660
ctacacgacg aggtgtcag gctgcttaag tcattctggc acctatcct gacagtgaag
720
gacgtcggga ggctgcccc tgcccgacc actgtggacg agaccaagtg gatcgccagt
780
tcccggatca gggagacat ggcgaactcg gcagggttc ttggcgatct cacaacagaa
840
ggaataaaca agccaggatt ttacaaggc ccagccggct ccaggtgac cctgagcagc
900
ctggggaacc agacacgagt gctgctggag gagcaggctc ggcacctgct gaacgagcag
960
gaacacacca ccatggccta ctacctgat gactaccgtg gcggcagcgt ctctgtggag
1020
gccctcgtca tggccctgtt caagctgctc aacaccacg ccaagttctc actcctctct
1080

```

gaggtgagag gcaccatttc cccgcaagac ctagaacgct tgcaccacct ggtgctgagg
1140
cgtgagattg agtccatgaa ggcgcggcag cccccaggcc ccggggctgg ggacacctac
1200
tccatggtct cctacagtga cacgggttca tccacaggca gccacggcac ctccaccacc
1260
gtcagctcgg ccaggaacac tctggacctg gaggaactg gcgaggctgt ccagggaat
1320
atcaacgccc tcccagatgt gtccgtggat gatgtcagat ccacctcca ggggctgtca
1380
agcttcaagc cactgcctcg cccaccacct ctggcccaag gcaacgacct cccactaggc
1440
cagccaagga agctggggag agaggacctc cagccacctt cctccatgcc ttctgtctcg
1500
ggcactgtct tctcggtccc acagaaccgc agcccgccag cgggcaccgc acccaccca
1560
gggacctcct ctgcacagga cttgccctct tccccatct atgcctccgt ctcccctgcc
1620
aaccacagct ccaagaggcc gctggacgcc catctggccc tggtaacca acacccatc
1680
ggcccccttc cacgggtcca gtcacccccg cacctgaaaa gcccctctgc agaggccaca
1740
gtggctgggg gctgccttct gccccatca ccctctggcc acccagacca gacaggcaca
1800
aaccagcact ttgtcatggt ggaggtccac cgccccgaca gcgagccaga cgtcaatgaa
1860
gtgagggcgc tgccccagac gcgcacagcc tctacgtct cccagctctc ggacagcggg
1920
cagactctaa gcgaggacag tgggtgtggat gctggcgagg cagaggccag cgccccaggc
1980
cgaggaaggc agtcggtgtc caccaagagc aggagtagca aggagctgcc tcggaacgag
2040
aggccacag atggggccaa caaacgcct ggacttctgg agccacgtc cactctggtc
2100
cgtgtgaaga aaagtgcggc caccctgggc atcgccatcg aggggtggcg caacaccgc
2160
cagccccctgc ctaggattgt cactattcag agaggcggct cagctcaca ctgtgggcag
2220
ctcaagggtg gccacgtgat tctggaagt aatgggctga cgcttcgggg caaggagcac
2280
cgggaggccg ccgcattat cgccgaggcc ttcaagacta aggaccgtga ctacattgac
2340
tttctggtca ctgagttcaa tgtgatgtc tagaggccaa ggcctgagg cctcccacca
2400
ctgcccagcc cctgggtcca gtcccttcc accgttggt tcatcaagct ccttgcgggg
2460
ttggggctgc atggccaggg tggcaggaag acatcccccc tccatcccag cccactggac
2520
cagaactggg agaggaagag agcaggacaa ggcagacaga aggtcaggtc aggaactggt
2580
gctgtactgg gtacacagta ggcgcccagg acaagtgggt tgcaagacag gaagaaagga
2640
aaaggaaggg cagagtgtc gtttctccag gttgggttg gggcactgct gtccccctc
2700

cagctaggac ccagcccatc cccagatgcc tgagcctttg tccaaagtga ggtcactcga
 2760
 gaattcatgg acacggcccc cagtcagggg gcatcttgca agacctttag tgccacaaat
 2820
 aagcatcgag cacctcccca ttcacacccc cattcctcct ggctccttat ccccatgggt
 2880
 gtttattatt tatttccttc cccatgcccc tggggacccc aaggccccag cttccctctg
 2940
 cacccccagc ctatcccaga ggccttgacg gtgaccagca gtgtcattgt atttatatac
 3000
 agagcttatg actttaattt ttcaataaag aaatctgaac aagggttaaaa aaaaaaaaaa
 3060
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 3102

<210> 1992

<211> 733

<212> PRT

<213> Homo sapiens

<400> 1992

Thr	Pro	Ala	Glu	Gly	Leu	Leu	Ala	Ala	Gly	Lys	Leu	Leu	Gly	Ser	Arg
1				5					10					15	
Gly	Pro	Arg	Leu	Leu	Pro	Pro	Glu	Cys	Arg	Ser	Val	Ala	Cys	Val	Gln
			20					25					30		
Ala	Leu	Lys	Gly	Ser	Lys	Lys	Leu	Val	Leu	Ser	Val	Tyr	Ser	Ala	Gly
			35				40					45			
Arg	Ile	Pro	Gly	Gly	Tyr	Val	Thr	Asn	His	Ile	Tyr	Thr	Trp	Val	Asp
			50			55					60				
Pro	Gln	Gly	Arg	Ser	Ile	Ser	Pro	Pro	Ser	Gly	Leu	Pro	Gln	Pro	His
					70					75				80	
Gly	Gly	Ala	Leu	Arg	Gln	Gln	Glu	Gly	Asp	Arg	Arg	Ser	Thr	Leu	His
				85					90					95	
Leu	Leu	Gln	Gly	Gly	Asp	Glu	Lys	Lys	Val	Asn	Leu	Val	Leu	Gly	Asp
			100					105					110		
Gly	Arg	Ser	Leu	Gly	Leu	Thr	Ile	Arg	Gly	Gly	Ala	Glu	Tyr	Gly	Leu
			115				120					125			
Gly	Ile	Tyr	Ile	Thr	Gly	Val	Asp	Pro	Gly	Ser	Glu	Ala	Glu	Gly	Ser
			130			135					140				
Gly	Leu	Lys	Val	Gly	Asp	Gln	Ile	Leu	Glu	Val	Asn	Gly	Arg	Ser	Phe
					150				155						160
Leu	Asn	Ile	Leu	His	Asp	Glu	Ala	Val	Arg	Leu	Leu	Lys	Ser	Ser	Arg
				165				170						175	
His	Leu	Ile	Leu	Thr	Val	Lys	Asp	Val	Gly	Arg	Leu	Pro	His	Ala	Arg
			180					185					190		
Thr	Thr	Val	Asp	Glu	Thr	Lys	Trp	Ile	Ala	Ser	Ser	Arg	Ile	Arg	Glu
			195				200					205			
Thr	Met	Ala	Asn	Ser	Ala	Gly	Phe	Leu	Gly	Asp	Leu	Thr	Thr	Glu	Gly
			210			215					220				
Ile	Asn	Lys	Pro	Gly	Phe	Tyr	Lys	Gly	Pro	Ala	Gly	Ser	Gln	Val	Thr
					230					235				240	
Leu	Ser	Ser	Leu	Gly	Asn	Gln	Thr	Arg	Val	Leu	Leu	Glu	Glu	Gln	Ala
				245				250						255	
Arg	His	Leu	Leu	Asn	Glu	Gln	Glu	His	Thr	Thr	Met	Ala	Tyr	Tyr	Leu

260							265					270					
Asp	Glu	Tyr	Arg	Gly	Gly	Ser	Val	Ser	Val	Glu	Ala	Leu	Val	Met	Ala		
275							280					285					
Leu	Phe	Lys	Leu	Leu	Asn	Thr	His	Ala	Lys	Phe	Ser	Leu	Leu	Ser	Glu		
290							295					300					
Val	Arg	Gly	Thr	Ile	Ser	Pro	Gln	Asp	Leu	Glu	Arg	Phe	Asp	His	Leu		
305	310							315					320				
Val	Leu	Arg	Arg	Glu	Ile	Glu	Ser	Met	Lys	Ala	Arg	Gln	Pro	Pro	Gly		
325							330					335					
Pro	Gly	Ala	Gly	Asp	Thr	Tyr	Ser	Met	Val	Ser	Tyr	Ser	Asp	Thr	Gly		
340							345					350					
Ser	Ser	Thr	Gly	Ser	His	Gly	Thr	Ser	Thr	Thr	Val	Ser	Ser	Ala	Arg		
355							360					365					
Asn	Thr	Leu	Asp	Leu	Glu	Glu	Thr	Gly	Glu	Ala	Val	Gln	Gly	Asn	Ile		
370							375					380					
Asn	Ala	Leu	Pro	Asp	Val	Ser	Val	Asp	Asp	Val	Arg	Ser	Thr	Ser	Gln		
385	390							395					400				
Gly	Leu	Ser	Ser	Phe	Lys	Pro	Leu	Pro	Arg	Pro	Pro	Pro	Leu	Ala	Gln		
405							410					415					
Gly	Asn	Asp	Leu	Pro	Leu	Gly	Gln	Pro	Arg	Lys	Leu	Gly	Arg	Glu	Asp		
420							425					430					
Leu	Gln	Pro	Pro	Ser	Ser	Met	Pro	Ser	Cys	Ser	Gly	Thr	Val	Phe	Ser		
435							440					445					
Ala	Pro	Gln	Asn	Arg	Ser	Pro	Pro	Ala	Gly	Thr	Ala	Pro	Thr	Pro	Gly		
450							455					460					
Thr	Ser	Ser	Ala	Gln	Asp	Leu	Pro	Ser	Ser	Pro	Ile	Tyr	Ala	Ser	Val		
465	470							475					480				
Ser	Pro	Ala	Asn	Pro	Ser	Ser	Lys	Arg	Pro	Leu	Asp	Ala	His	Leu	Ala		
485							490					495					
Leu	Val	Asn	Gln	His	Pro	Ile	Gly	Pro	Phe	Pro	Arg	Val	Gln	Ser	Pro		
500							505					510					
Pro	His	Leu	Lys	Ser	Pro	Ser	Ala	Glu	Ala	Thr	Val	Ala	Gly	Gly	Cys		
515							520					525					
Leu	Leu	Pro	Pro	Ser	Pro	Ser	Gly	His	Pro	Asp	Gln	Thr	Gly	Thr	Asn		
530							535					540					
Gln	His	Phe	Val	Met	Val	Glu	Val	His	Arg	Pro	Asp	Ser	Glu	Pro	Asp		
545	550							555					560				
Val	Asn	Glu	Val	Arg	Ala	Leu	Pro	Gln	Thr	Arg	Thr	Ala	Ser	Thr	Leu		
565							570					575					
Ser	Gln	Leu	Ser	Asp	Ser	Gly	Gln	Thr	Leu	Ser	Glu	Asp	Ser	Gly	Val		
580							585					590					
Asp	Ala	Gly	Glu	Ala	Glu	Ala	Ser	Ala	Pro	Gly	Arg	Gly	Arg	Gln	Ser		
595							600					605					
Val	Ser	Thr	Lys	Ser	Arg	Ser	Ser	Lys	Glu	Leu	Pro	Arg	Asn	Glu	Arg		
610							615					620					
Pro	Thr	Asp	Gly	Ala	Asn	Lys	Pro	Pro	Gly	Leu	Glu	Pro	Thr	Ser			
625	630							635					640				
Thr	Leu	Val	Arg	Val	Lys	Lys	Ser	Ala	Ala	Thr	Leu	Gly	Ile	Ala	Ile		
645							650					655					
Glu	Gly	Gly	Ala	Asn	Thr	Arg	Gln	Pro	Leu	Pro	Arg	Ile	Val	Thr	Ile		
660							665					670					
Gln	Arg	Gly	Gly	Ser	Ala	His	Asn	Cys	Gly	Gln	Leu	Lys	Val	Gly	His		
675							680					685					
Val	Ile	Leu	Glu	Val	Asn	Gly	Leu	Thr	Leu	Arg	Gly	Lys	Glu	His	Arg		

690		695		700
Glu Ala Ala Arg Ile Ile Ala Glu Ala Phe Lys Thr Lys Asp Arg Asp				
705		710		715
Tyr Ile Asp Phe Leu Val Thr Glu Phe Asn Val Met Leu				720
	725		730	

<210> 1993
 <211> 957
 <212> DNA
 <213> Homo sapiens

<400> 1993
 nngaaaacct acgggatgac acgtgccctc gatcacatcg acatcgccat cccagctggc
 60
 cagtcggtcg ccgtcatggg gccgtccggg tcaggcaaga ccaccctgct gcactgcttg
 120
 tcggggatcc tctcgccctga ctccggcagt atcgaactgg ctctgccgga ccgcaccgtc
 180
 aacgtcgaaa acctctctaa cgaaggccga gcaaagctac gccgtcaatc ccttggtttc
 240
 gtcttccaac aaggaatgct cgtacccgag ctactgctg tcgagaacac cgccctaccc
 300
 ctcatgctta acggcgatc ccaaaccgat gcggtcaggt atgccacca atggcttgaa
 360
 tcgatggggg taggcggcat ggaggatcgt cggattgggc agctctccgg gggccaagct
 420
 caacgcgtca ctattgcccgtgtcccaggta atcgatccgt cgattgtctt cgctgacgaa
 480
 cccaccggag ccctcgactc agccaccgcc gtcgaagtca tggccattct gctttcggcg
 540
 acgaccgggc ggggacgcac cctcgtcgtc gtcacccatg acgaggacgt tgcccgcgcg
 600
 tgccagcgca tccttcatct gcacgacggg cggatcgctt ctgaccacgt acgtcattcc
 660
 gatgggaggt ggtgatcatg actataacgc cccctatcga accgggaacc gccgatcaaa
 720
 ggatcccgtc cctccccgtc cccgagcccc tgggagctac gcccggaagt cttaccactg
 780
 ctgcgatcct cagcatgacc ctccgtgcct cagccgctga cactccacc tggcggttgc
 840
 cggtagttgc ttctcgctgc attgcaacca tcctcctcga cgtcactggc ggtgccgtca
 900
 tgatgtggca tctaccggga gacaactctg gcttctacaa gctgacctcg acaattg
 957

<210> 1994
 <211> 224
 <212> PRT
 <213> Homo sapiens

<400> 1994
 Xaa Lys Thr Tyr Gly Met Thr Arg Ala Leu Asp His Ile Asp Ile Ala
 1 5 10 15
 Ile Pro Ala Gly Gln Ser Val Ala Val Met Gly Pro Ser Gly Ser Gly

			20						25						30			
Lys	Thr	Thr	Leu	Leu	His	Cys	Leu	Ser	Gly	Ile	Leu	Ser	Pro	Asp	Ser			
		35					40					45						
Gly	Ser	Ile	Glu	Leu	Ala	Leu	Pro	Asp	Arg	Thr	Val	Asn	Val	Glu	Asn			
	50					55					60							
Leu	Ser	Asn	Glu	Gly	Arg	Ala	Lys	Leu	Arg	Arg	Gln	Ser	Leu	Gly	Phe			
65					70					75					80			
Val	Phe	Gln	Gln	Gly	Met	Leu	Val	Pro	Glu	Leu	Thr	Ala	Val	Glu	Asn			
				85					90					95				
Thr	Ala	Leu	Pro	Leu	Met	Leu	Asn	Gly	Val	Ser	Gln	Thr	Asp	Ala	Val			
			100					105					110					
Arg	Tyr	Ala	Thr	Gln	Trp	Leu	Glu	Ser	Met	Gly	Leu	Gly	Gly	Met	Glu			
		115					120					125						
Asp	Arg	Arg	Ile	Gly	Gln	Leu	Ser	Gly	Gly	Gln	Ala	Gln	Arg	Val	Thr			
		130				135					140							
Ile	Ala	Arg	Ser	Gln	Val	Ile	Asp	Pro	Ser	Ile	Val	Phe	Ala	Asp	Glu			
145				150						155					160			
Pro	Thr	Gly	Ala	Leu	Asp	Ser	Ala	Thr	Ala	Val	Glu	Val	Met	Ala	Ile			
				165					170					175				
Leu	Leu	Ser	Ala	Thr	Thr	Gly	Arg	Gly	Arg	Thr	Leu	Val	Val	Val	Thr			
			180					185					190					
His	Asp	Glu	Asp	Val	Ala	Arg	Arg	Cys	Gln	Arg	Ile	Leu	His	Leu	His			
		195					200					205						
Asp	Gly	Arg	Ile	Val	Ser	Asp	His	Val	Arg	His	Ser	Asp	Gly	Arg	Trp			
	210					215					220							

35
40
 Asp Cys Gly Pro Ala Pro Arg Ala Leu Leu Cys
50
55

```
<210> 1997
<211> 313
<212> DNA
<213> Homo sapiens
```

```
<400> 1997
ccgctggttg  tggtgctgct  gattggcatg  gccatctata  ccttcgcga  gaaagacctg
60
ggcaagctgc  acaagccggt  cagcatcggc  cggcgcgaga  tgctggtggg  gctggccatc
120
ggtggcggca  tcggttttta  cgacggcctg  ttcggggccg  gtaccggcag  tttcctgatg
180
ttcctgttcg  tgcggttttt  gcgttttgat  ttcttgcatg  cttctgcgc  ggccaaggtt
240
gtcaacctgg  ccaccaatgt  ggcggcactg  tgctttttca  ttccagcgg  caatgtgctg
300
tatggctacg  cgt
313
```

```
<210> 1998
<211> 104
<212> PRT
<213> Homo sapiens
```

[illegible]

```
<210> 1999
<211> 399
<212> DNA
<213> Homo sapiens
```

```
<400> 1999
ccgcggcgca agttggaatg gcaaaacatt ttcattcccg gcgagcaagg tagcttgagt
60
tccactgcgc agagggcaga tgtgaagtac tccggtactg ttcattttac cgggtgttggc
120
```

ggaagaatgg atcttactct cgctgaccct gagattgtcg ttaacaatgg cgatgatcat
 180
 gtgattatgt ctgtgaagtc caagactatg gtcgggcagt tggttgacta tggccgtata
 240
 actttcgttg atatgaccgg ctctattacg caggggtcaaa acgatgcagc tcaggttgtg
 300
 gggaccaatg tcaagctgaa tagccaagcc gtcgatgcat tcgctggctt ctatcaagct
 360
 ggaaagccca tggatgacat cgattcgtcc ttaaagctt
 399

<210> 2000

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2000

Met	Asp	Leu	Thr	Leu	Ala	Asp	Pro	Glu	Ile	Val	Val	Asn	Asn	Gly	Asp
1				5					10					15	
Asp	His	Val	Ile	Met	Ser	Val	Lys	Ser	Lys	Thr	Met	Val	Gly	Gln	Leu
			20					25					30		
Val	Asp	Tyr	Gly	Arg	Ile	Thr	Phe	Val	Asp	Met	Thr	Gly	Ser	Ile	Thr
		35					40					45			
Gln	Gly	Gln	Asn	Asp	Ala	Ala	Gln	Val	Val	Gly	Thr	Asn	Val	Lys	Leu
	50					55					60				
Asn	Ser	Gln	Ala	Val	Asp	Ala	Phe	Ala	Gly	Phe	Tyr	Gln	Ala	Gly	Lys
65					70					75					80
Pro	Met	Asp	Asp	Ile	Asp	Ser	Ser	Leu	Lys	Leu					
				85						90					

<210> 2001

<211> 1434

<212> DNA

<213> Homo sapiens

<400> 2001

nngaataag gacgtcataa tttgctgac agcagtgcag ctgactggag gagggacaaa
 60
 tttggcagga cccactgca ctatgcagct gctaacggta gctaccagtg tgcagtaaca
 120
 ttggtgactg ctggggcagg tgtcaacgag gccgactgta aaggctgctc tcccctccac
 180
 tacgctgccg cttctgacac ttacaggnag agcggaaccc catacacctt ccagccatga
 240
 tgccgaagag ganncgagcc actgaaggag tcccgcagga aggaggcctt cttctgtctg
 300
 gagttcttac tggataacgg tgcagacccc tccctgcggg acaggcaggg ctacacagct
 360
 gtgcactatg cagccgccta tggcaacaga cagaacctcg aactgctctt agaaatgtcc
 420
 tttaactgcc tggaggatgt ggagagcacc attccagtca gccctttgca cttagctgcc
 480
 tacaacggtc actgtgaagc cttgaagacg ctggcggaga cgctggtgaa tctggacgta
 540

agggaccaca agggccggac cgcactcttc ctggccacgg agcgcggtc tactgagtgt
 600
 gtggaggtgc ttacagccca cggcgctctt gccctcatca aggagcgcaa gcgcaagtgg
 660
 acacccctgc acgccgtgc tgcctctggc cactctgact ccctgcactt gctgatcgac
 720
 agtggggaac gagctgacat cacagatgtc atggatgcct atggacagac cccactgatg
 780
 ctggccatca tgaatggcca tgtggactgt gtacatctgc tgctagagaa aggatccaca
 840
 gctgatgctg ctgacctcg gggccgcact gccctccacc gcggggcagt gactggctgt
 900
 gaggactgcc tggctgccct gctggaccac gacgcatttg tgctgtgccg agactttaag
 960
 ggccgcacgc ccattcacct ggcctcagcc tgtggccaca ctgcagtact ggggacctg
 1020
 ctgcaggtcg ccctttccac agatcccctg gatgccgggg tggattacag cggatactcg
 1080
 cccatgcact gggcctccta cactggacat gaagattgtc tggagttgtt acttgaacac
 1140
 agcccgtttt cgtacctgga aggaacccc ttcactcctt tgcactgtgc agtgattaat
 1200
 aaccaagaca gcaccacaga gatgctactg ggagctctgg gtgccaagat tgtgaacagc
 1260
 cgagatgcca aaggacggac ccccttcac gccgctgcct tcgcggacaa tgtctctggg
 1320
 ctccggatgc tgctgcagca tcaagctgag gtgaacgcca ctgaccacac tggccgcact
 1380
 gcgctcatga cggcggtga gaacgggcag accgctgctg tggaatttct gctg
 1434

<210> 2002

<211> 79

<212> PRT

<213> Homo sapiens

<400> 2002

Xaa	Asn	Glu	Gly	Arg	His	Asn	Leu	Leu	Ile	Ser	Ser	Ala	Ala	Asp	Trp
1				5					10					15	
Arg	Arg	Asp	Lys	Phe	Gly	Arg	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ala	Asn
			20					25					30		
Gly	Ser	Tyr	Gln	Cys	Ala	Val	Thr	Leu	Val	Thr	Ala	Gly	Ala	Gly	Val
			35				40					45			
Asn	Glu	Ala	Asp	Cys	Lys	Gly	Cys	Ser	Pro	Leu	His	Tyr	Ala	Ala	Ala
	50					55				60					
Ser	Asp	Thr	Tyr	Arg	Xaa	Ser	Gly	Thr	Pro	Tyr	Thr	Phe	Gln	Pro	
65					70					75					

<210> 2003

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2003

ntcattgacta cggagacact gaagaaaatt cagattgata ggcagttttt cagcgatgtg
 60
 attgcagata ccattaagga gttgcaagat tcggccactt acaacagtct cctgcaagct
 120
 ttgagcaaag agagggaaaa caaatgcat ttctatgaca tcatttccag ggaggaaaaa
 180
 ggaagaaaac agataatatc acttcaaaaa cagctaatta atttcaaaaa ggaatggcaa
 240
 tttgaagtcc agagtcagaa tgagtatatt gctaacctca aggaccaact gcaagagatg
 300
 aaggcaaat ccaacttgga gaatcgctac atgaaaacca ataccgagct gcagattgcc
 360
 cagaccaga aaaagtgtaa cagaacagag gaactcttgg tggaagagat tgagaaactc
 420
 aggatgaaaa ccgaagaaga ggcccggact catacagaga ttgaaatggt ccttagaaaag
 480
 gaggcagagg tgggtcccca cagcttttct atgctttgac ttttttttg tactctgctt
 540
 atactgagga aacaaaaaga atattttgaa ggaaaaccaa ccatcattct ttcagcctaa
 600
 tgaactttag ctcatgtttt ctttcagggt tatgcatctg aatagatatc ttatatagct
 660
 gtaatttgag agagtgcagg taaaattg
 688

<210> 2004

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2004

Xaa	Met	Thr	Thr	Glu	Thr	Leu	Lys	Lys	Ile	Gln	Ile	Asp	Arg	Gln	Phe
1				5					10					15	
Phe	Ser	Asp	Val	Ile	Ala	Asp	Thr	Ile	Lys	Glu	Leu	Gln	Asp	Ser	Ala
			20					25					30		
Thr	Tyr	Asn	Ser	Leu	Leu	Gln	Ala	Leu	Ser	Lys	Glu	Arg	Glu	Asn	Lys
		35					40						45		
Met	His	Phe	Tyr	Asp	Ile	Ile	Ser	Arg	Glu	Glu	Lys	Gly	Arg	Lys	Gln
	50					55					60				
Ile	Ile	Ser	Leu	Gln	Lys	Gln	Leu	Ile	Asn	Phe	Lys	Lys	Glu	Trp	Gln
65					70				75					80	
Phe	Glu	Val	Gln	Ser	Gln	Asn	Glu	Tyr	Ile	Ala	Asn	Leu	Lys	Asp	Gln
			85					90						95	
Leu	Gln	Glu	Met	Lys	Ala	Lys	Ser	Asn	Leu	Glu	Asn	Arg	Tyr	Met	Lys
			100					105					110		
Thr	Asn	Thr	Glu	Leu	Gln	Ile	Ala	Gln	Thr	Gln	Lys	Lys	Cys	Asn	Arg
		115				120						125			
Thr	Glu	Glu	Leu	Leu	Val	Glu	Ile	Glu	Lys	Leu	Arg	Met	Lys	Thr	
	130					135				140					
Glu	Glu	Glu	Ala	Arg	Thr	His	Thr	Glu	Ile	Glu	Met	Phe	Leu	Arg	Lys
145					150					155				160	
Glu	Gln	Gln	Val	Gly	Pro	His	Ser	Phe	Ser	Met	Leu				
			165					170							

<210> 2005
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 2005
 gctagcacca agccaagggt atgtttcctt gcttgcattgt ggggtttctg gccagtcagc
 60
 caagtgaact gattgacccc cagccctgtg gggaatttca ggggggtatt gtcttgggtca
 120
 tcggagtcag ggggtggcctt tnagccaagg ctgcattaac ttttgggaaa agaaatggga
 180
 agcccgcctg gtcacagggt ctctgaccg gctgggtagg gtttggcctt atcttacagc
 240
 cagtgtgtg tttgtcaga tggacgcaca tggaaaccag gctaggatca tcttcccaat
 300
 gtctactccc tgctttggc tgtcctgaaa acaattgcaa agacattgtg gctg
 354

<210> 2006
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2006
 Met Phe Pro Cys Leu His Val Gly Phe Leu Ala Ser Gln Pro Ser Glu
 1 5 10 15
 Leu Ile Asp Pro Gln Pro Cys Gly Glu Phe Gln Gly Gly Ile Val Leu
 20 25 30
 Val Ile Gly Val Arg Gly Gly Leu Xaa Ala Lys Ala Ala Leu Thr Phe
 35 40 45
 Gly Lys Arg Asn Gly Lys Pro Ala Val Ser Gln Gly Leu Leu Thr Gly
 50 55 60
 Trp Val Gly Phe Gly Leu Ile Leu Gln Pro Val Leu Cys Leu Leu Arg
 65 70 75 80
 Trp Thr His Met Glu Thr Arg Leu Gly Ser Ser Ser Gln Cys Leu Leu
 85 90 95
 Pro Ala Leu Val Cys Pro Glu Asn Asn Cys Lys Asp Ile Val Ala
 100 105 110

<210> 2007
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 2007
 nnacgcgtgc catgtgcatg tgtatatgca tgtatgtgcg tatgtgtgtg catgtgtgtg
 60
 tgtatatgca tgtgtgtatg tgcattgtacg tgnngtgca tatgcgtgtg catgcatgcg
 120
 tgtgcgtatg tgtgcatann catgtgcaca catgtacaca cgtgtacatg ttcattgcag
 180
 tgcacgtgca tatgtgtaca cgtgtatgcg tgtacatgta tgagcatatg tacacgtgtg
 240

gatgtgtgtg tatgcatgtg tgtgtgcaca gatatgcctt ttcctttcat acaggctggt
 300
 ttgagtattg ctggtaggca gggacaactt tccgt
 335

<210> 2008
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2008
 Xaa Arg Val Pro Cys Ala Cys Val Tyr Ala Cys Met Cys Val Cys Val
 1 5 10 15
 Cys Met Cys Val Cys Ile Cys Met Cys Val Cys Ala Cys Thr Cys Xaa
 20 25 30
 Cys Ile Cys Val Cys Met His Ala Cys Ala Tyr Val Cys Ile Xaa Met
 35 40 45
 Cys Thr His Val His Thr Cys Thr Cys Ser Cys Met Cys Thr Cys Ile
 50 55 60
 Cys Val His Val Tyr Ala Cys Thr Cys Met Ser Ile Cys Thr Arg Val
 65 70 75 80
 Asp Val Cys Val Cys Met Cys Val Cys Thr Asp Met Pro Phe Pro Phe
 85 90 95
 Ile Gln Ala Gly Leu Ser Ile Ala Gly Arg Gln Gly Gln Leu Ser
 100 105 110

<210> 2009
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 2009
 gacatcaccc cgctgctggc caaccccaac ggtttctccg cagcgatcga ggaactggtg
 60
 ctgcgttccc cagcgacat cgacgtgggc gtcggcatgg aggctcgcg gcttctcttc
 120
 gcagctccgg tcgccctggc catcggggca ggattcgtgc cggcgcgcaa gccggggaag
 180
 ctccccggcc aggtgtattc cgagaccttt gccatggagt acggggagga gaccctcacc
 240
 gtccaccagt acgccatcaa gccggggctg cgcgtcatca tcgtcgac
 288

<210> 2010
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2010
 Asp Ile Thr Pro Leu Leu Ala Asn Pro Asn Gly Phe Ser Ala Ala Ile
 1 5 10 15
 Glu Glu Leu Val Leu Arg Ser Pro Arg Asp Ile Asp Val Val Val Gly
 20 25 30
 Met Glu Ala Arg Gly Phe Leu Phe Ala Ala Pro Val Ala Leu Ala Ile

1527

<212> DNA

<213> Homo sapiens

<400> 2013

gcgtatcccc acggtacgg catgaccgcg cttatcggcc cggacctgtc caccgtcgaa
60
gccttgctcg cccaggtcca cagcacacaa accccggtgt acctggccaa tatcaatgcc
120
gataaccaga cggttatcgc gggcagcgac ggggcaatga aagcagtcgc caatctggtc
180
cgcggaacg gcgtcgccaa acgcttgccc gtcagcgtgc cgtcccattg tgcgctgctg
240
gaaaaacctg ccgaaacact ggcccaagcc ttcgctgaag tgacgctgaa aacgccgncn
300
nnncccn
309

<210> 2014

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2014

Ala	Tyr	Pro	His	Gly	Tyr	Gly	Met	Thr	Ala	Leu	Ile	Gly	Pro	Asp	Leu
1				5				10				15			
Ser	Thr	Val	Glu	Ala	Leu	Leu	Ala	Gln	Val	His	Ser	Thr	Gln	Thr	Pro
			20				25					30			
Val	Tyr	Leu	Ala	Asn	Ile	Asn	Ala	Asp	Asn	Gln	Thr	Val	Ile	Ala	Gly
		35				40				45					
Ser	Asp	Gly	Ala	Met	Lys	Ala	Val	Ala	Asn	Leu	Val	Arg	Gly	Asn	Gly
	50				55				60						
Val	Ala	Lys	Arg	Leu	Ala	Val	Ser	Val	Pro	Ser	His	Cys	Ala	Leu	Leu
65				70				75				80			
Glu	Lys	Pro	Ala	Glu	Thr	Leu	Ala	Gln	Ala	Phe	Ala	Glu	Val	Thr	Leu
			85				90					95			
Lys	Thr	Pro	Xaa	Xaa	Pro	Xaa									
			100												

<210> 2015

<211> 329

<212> DNA

<213> Homo sapiens

<400> 2015

acgcgtgcca tgctcgggtat ccgccgccac caccctgtct ttgggaccgg cgagttcacc
60
gatctaggcg ggccggacat ggcagtgatg tccttcctac gtcacaacga gcacgaaacg
120
gtcctgtgcc tggctaattc ctccgatact gagcggacgg ttgcccttca ccttccacaa
180
ttcgcgggcg tggcgggctc ttctctcctc catggtcagg acgcgcaacc agtaaaagct
240
gacggaacac tgtccgtacc gttgtggcca tatggctatc gatggctgca gatgtccggg
300

gaggagaggt catgaccgct tgggaagac
329

<210> 2016
<211> 104
<212> PRT
<213> Homo sapiens

<400> 2016
Thr Arg Ala Met Leu Gly Ile Arg Arg His His Pro Val Phe Gly Thr
1 5 10 15
Gly Glu Phe Thr Asp Leu Gly Gly Pro Asp Met Ala Val Met Ser Phe
20 25 30
Leu Arg His Asn Glu His Glu Thr Val Leu Cys Leu Ala Asn Leu Ser
35 40 45
Asp Thr Glu Arg Thr Val Ala Leu His Leu Pro Gln Phe Ala Gly Val
50 55 60
Ala Gly Ser Ser Leu Ile His Gly Gln Asp Ala Gln Pro Val Lys Ala
65 70 75 80
Asp Gly Thr Leu Ser Val Pro Leu Trp Pro Tyr Gly Tyr Arg Trp Leu
85 90 95
Gln Met Ser Gly Glu Glu Arg Ser
100

<210> 2017
<211> 457
<212> DNA
<213> Homo sapiens

<400> 2017
accaaggtca gattcatggc ctcttttctt ccagcggcca gcaggaaacg cggggagccc
60
ttgatcatct ccgacatcaa gaaaggcagc gtggcacaca ggacggggcac cctggagcca
120
ggcgacaagc tactggccat tgacaatatc cgcttgga actgccccat ggaggacgcc
180
gtgcaaatcc tgcggcagtg cgaggacctg gtgaagctga agatccggaa ggacgaggac
240
aactctgatg agctggagac cacaggtgcc gtcagttaca cagtggagct gaagcgctac
300
gggggtcccc tgggcatcac catttcgggc acggaggaac cttttgacct cattttcatc
360
tcaggcctcc ccaaactggg cctggctgag aggactggtg ccatccagtg ggggaaccgc
420
ttcggaccat aacaactgta ttctcagga cggacca
457

<210> 2018
<211> 143
<212> PRT
<213> Homo sapiens

<400> 2018
Thr Lys Val Arg Phe Met Ala Ser Phe Pro Pro Ala Ala Ser Arg Lys

```

      1           5           10           15
Arg Gly Glu Pro Leu Ile Ile Ser Asp Ile Lys Lys Gly Ser Val Ala
      20           25           30
His Arg Thr Gly Thr Leu Glu Pro Gly Asp Lys Leu Leu Ala Ile Asp
      35           40           45
Asn Ile Arg Leu Asp Asn Cys Pro Met Glu Asp Ala Val Gln Ile Leu
      50           55           60
Arg Gln Cys Glu Asp Leu Val Lys Leu Lys Ile Arg Lys Asp Glu Asp
      65           70           75           80
Asn Ser Asp Glu Leu Glu Thr Thr Gly Ala Val Ser Tyr Thr Val Glu
      85           90           95
Leu Lys Arg Tyr Gly Gly Pro Leu Gly Ile Thr Ile Ser Gly Thr Glu
      100          105          110
Glu Pro Phe Asp Pro Ile Phe Ile Ser Gly Leu Pro Lys Arg Gly Leu
      115          120          125
Ala Glu Arg Thr Gly Ala Ile Gln Trp Gly Asn Arg Phe Gly Pro
      130          135          140

```

<210> 2019
 <211> 483
 <212> DNA
 <213> Homo sapiens

<400> 2019
 cgcgtcggcg acgattttat cctcgggggtt cgttataccg ccgatgaatg tctcgagaac
 60
 ggcaccggca aggcggaagg catcgaaatc tccagacggc tgaaggagag cggcctgac
 120
 gactatctca acgtcatcag gggacatatc gacaccgatc ccggcctgac cgacgtcatc
 180
 cccattcagg gcatggcgag cgcgccgcat cttgatttcg caggcgaaat ccgcgcggcg
 240
 accagcttcc ccgtcttcca tgccgcaaaa attcaggatg tcgccaccgc ccggcatgcg
 300
 attgccgccg gcaaggtcga catgatcggc atgaccgcgc ccacatgac cgatccgcat
 360
 atcgtccgca agatcatgga aaaacaggag gaggacatcc gccctgcgt cggcgccaat
 420
 tattgtcttg atcgcattha tcaaggcggc ctgccttct gcattcacia tgcggcaacc
 480
 ggc
 483

<210> 2020
 <211> 161
 <212> PRT
 <213> Homo sapiens

```

<400> 2020
Arg Val Gly Asp Asp Phe Ile Leu Gly Val Arg Tyr Thr Ala Asp Glu
  1           5           10           15
Cys Leu Glu Asn Gly Thr Gly Lys Ala Glu Gly Ile Glu Ile Ser Arg
      20           25           30
Arg Leu Lys Glu Ser Gly Leu Ile Asp Tyr Leu Asn Val Ile Arg Gly

```

```

      35      40      45
His Ile Asp Thr Asp Pro Gly Leu Thr Asp Val Ile Pro Ile Gln Gly
      50      55      60
Met Ala Ser Ala Pro His Leu Asp Phe Ala Gly Glu Ile Arg Ala Ala
65      70      75      80
Thr Ser Phe Pro Val Phe His Ala Ala Lys Ile Gln Asp Val Ala Thr
      85      90      95
Ala Arg His Ala Ile Ala Ala Gly Lys Val Asp Met Ile Gly Met Thr
      100      105      110
Arg Ala His Met Thr Asp Pro His Ile Val Arg Lys Ile Met Glu Lys
      115      120      125
Gln Glu Glu Asp Ile Arg Pro Cys Val Gly Ala Asn Tyr Cys Leu Asp
      130      135      140
Arg Ile Tyr Gln Gly Gly Leu Ala Phe Cys Ile His Asn Ala Ala Thr
145      150      155      160
Gly

```

<210> 2021
 <211> 797
 <212> DNA
 <213> Homo sapiens

<400> 2021
 ngaattcggg cactggctta actcggagca cagcttcacc acgacccatg acaaggaagg
 60
 gtttctcctg agaagggcca gcaagtgtgt ttaaggacat cctccctcct gtccctgcag
 120
 ccctcctccc tcagtactcg cgagactacg aaaacacgtg ctgaaatgga caccgcgtcc
 180
 gggagccagt gttccgtcac ccagagaagcc atactcaata atgaaaagct ggtcttgccg
 240
 cccgcgatct ccagagtga cggctggctg ttaccctgc actacttcca ggtggtgacc
 300
 tgggctgtct tcgtgggctt ttcctcgccc accttcggga tcttcattcc ctctcgtcct
 360
 cacgcgtgga aatacatcgc ctatgtggta tccttttcat cgtggcatgg tctaagcggg
 420
 aggggttcct ggaggaccct gcgatggacc tggctgtggg gtctgggcca tggctgcccg
 480
 gtggcaccag tcacctgtcc tgggcccagac tatgtccccc gagcctgcag gtgggcccag
 540
 tggcccctta tggttttggc cagccccggg taagggtcag gccaggccag cgttggctga
 600
 gggagttccg gagaggggaat ctgtcaggag ggacagcagc cccctggcgt ggcgcaggac
 660
 ccgcccgtgt ggcagccttc cgctaaaatc cctgcgcagc attttgcaca tggccagccc
 720
 ctttctcctt gccctgggtg ccaaggagga acagcgccat gccccgcagg tcggcagcct
 780
 gcgtttccat gccaaagc
 797

<210> 2022

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 2022

```

Met Asp Thr Arg Ser Gly Ser Gln Cys Ser Val Thr Pro Glu Ala Ile
 1           5           10           15
Leu Asn Asn Glu Lys Leu Val Leu Pro Pro Arg Ile Ser Arg Val Asn
           20           25           30
Gly Trp Ser Leu Pro Leu His Tyr Phe Gln Val Val Thr Trp Ala Val
           35           40           45
Phe Val Gly Leu Ser Ser Ala Thr Phe Gly Ile Phe Ile Pro Phe Leu
           50           55           60
Pro His Ala Trp Lys Tyr Ile Ala Tyr Val Val Ser Phe Ser Ser Trp
65           70           75           80
His Gly Leu Ser Gly Arg Gly Ser Trp Arg Thr Leu Arg Trp Thr Trp
           85           90           95
Leu Trp Gly Leu Gly His Gly Cys Pro Val Ala Pro Val Thr Cys Pro
           100          105          110
Gly Pro Asp Tyr Val Pro Arg Ala Cys Arg Trp Ala Gln Trp Pro Leu
           115          120          125
Met Val Leu Ala Ser Pro Gly
           130          135

```

<210> 2023
 <211> 462
 <212> DNA
 <213> Homo sapiens

<400> 2023

```

naatctccga cgatccctgc cgacgtgctc gccggtgctc tcaagcaggc taaggaggct
60
cgcaccgcga tccttgaggt gatgaacgag gccatcgatt ctcccgatga aatggccccg
120
actgctccgc gcatcattac cgtccacatc ccagtggaca agatcgggtga ggtcatcggc
180
cccaagggca agatgattaa ccagattcag gacgacactg gcgccaatat ctctattgag
240
gacgatggca cgattttcat cggggctgat aacggagatt cggccgagtc tgcccgttcg
300
atgatcaacg cgatcgctaa cccacagatg cccgaggtcg gtgagcggtta cctcggcacc
360
gtcgtcaaga cgacgagctt tggcgctttc gtctctctgc tgcccggcaa ggatgggtctg
420
ttgcacatct ccaagatgcg tgaccttaac gacggtaaac gc
462

```

<210> 2024
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 2024

```

Xaa Ser Pro Thr Ile Pro Ala Asp Val Leu Ala Gly Ala Leu Lys Gln

```

```

      1           5           10           15
Ala Lys Glu Ala Arg Thr Ala Ile Leu Glu Val Met Asn Glu Ala Ile
      20           25           30
Asp Ser Pro Asp Glu Met Ala Pro Thr Ala Pro Arg Ile Ile Thr Val
      35           40           45
His Ile Pro Val Asp Lys Ile Gly Glu Val Ile Gly Pro Lys Gly Lys
      50           55           60
Met Ile Asn Gln Ile Gln Asp Asp Thr Gly Ala Asn Ile Ser Ile Glu
      65           70           75           80
Asp Asp Gly Thr Ile Phe Ile Gly Ala Asp Asn Gly Asp Ser Ala Glu
      85           90           95
Ser Ala Arg Ser Met Ile Asn Ala Ile Ala Asn Pro Gln Met Pro Glu
      100          105          110
Val Gly Glu Arg Tyr Leu Gly Thr Val Val Lys Thr Thr Ser Phe Gly
      115          120          125
Ala Phe Val Ser Leu Leu Pro Gly Lys Asp Gly Leu Leu His Ile Ser
      130          135          140
Lys Met Arg Asp Leu Asn Asp Gly Lys Arg
      145          150

```

<210> 2025

<211> 872

<212> DNA

<213> Homo sapiens

<400> 2025

```

cgtggtaacg atttacagga aagaacagct ggaactcgtg ctgggataac caggtacaag
60
tgctctctgc agagaataag tgcacacagg ttggtgtctt ctgaccgaga gccctcctga
120
agggaggtct gtacctcttc cctcatctca ttttacacaa ggcgacaggt cagaggccag
180
ggtgggacga gagcgaggga gcactgtctc tggcagcagc acttgccact ccacaatgtg
240
gagaccagaa cggcacccca gagagcacgg gggaaatggc tcattcttaa aacaatggca
300
gaagaaatcc agccaaggtc acttttcctg tgtgagcatg ttttaaggcca gagagtggct
360
acttctctgc ctctgcagc tccctcagtg tggcttgag gagttggcga agcttccaga
420
acacgctgga ggctgctctc cgggtgttcc cactggggac cccagggctc gcacattcct
480
gcaccgcctc ctgtaactgc agctgaagct ggaaagagac cgcagagctc ttgagaggcg
540
cggaaaacca atggcgaaat attttgtcac agatgacctg caggttgttg tttacgcgct
600
gcgctccgca tttgttgact cgtaaatcac atcttgaaaa acagtcaaag aaattgcagt
660
cttcatctcc tgtgcagttt tgctcaagga tttccctcat tttaggttca aaaaaggcca
720
tgtccacatc aatagccacc actgtgaagt cgctccggat ggcaaagttt tccggcttga
780
tgtcgcagag gtggaggcgg tgggtacagt ccctgtcgaa atgggtcccc atgtccaaga
840

```

agctgagtgc gaggcccctg atggccctgg cc
872

<210> 2026
<211> 157
<212> PRT
<213> Homo sapiens

<400> 2026
Met Gly Asn His Phe Asp Arg Asp Cys Thr His Arg Leu His Leu Cys
1 5 10 15
Asp Ile Lys Pro Glu Asn Phe Ala Ile Arg Ser Asp Phe Thr Val Val
20 25 30
Ala Ile Asp Val Asp Met Ala Phe Phe Glu Pro Lys Met Arg Glu Ile
35 40 45
Leu Glu Gln Asn Cys Thr Gly Asp Glu Asp Cys Asn Phe Phe Asp Cys
50 55 60
Phe Ser Arg Cys Asp Leu Arg Val Asn Lys Cys Gly Ala Gln Arg Val
65 70 75 80
Asn Asn Asn Leu Gln Val Ile Cys Asp Lys Ile Phe Arg His Trp Phe
85 90 95
Ser Ala Pro Leu Lys Ser Ser Ala Val Ser Phe Gln Leu Gln Leu Gln
100 105 110
Leu Gln Glu Ala Val Gln Glu Cys Ala Asp Pro Gly Val Pro Ser Gly
115 120 125
Asn Thr Arg Arg Ala Ala Ser Ser Val Phe Trp Lys Leu Arg Gln Leu
130 135 140
Leu Gln Ala Thr Leu Arg Glu Leu Gln Glu Ala Glu Lys
145 150 155

<210> 2027
<211> 721
<212> DNA
<213> Homo sapiens

<400> 2027
tgtacaatga cagaccaagt ataaggcttt ggttgagaga ccagctttta aatattgaaa
60
gacaaatata gtgtaaaagg cgcaatggaa tttgtatagt gaaggagatt ctctagtccc
120
agggttgtaa tgtcacttct gtctaattca ttacagaatt acagaatcaa atcatgttag
180
ccctagaaga aactgcagat cattttgttc aatctttctca ttatatagga aaggaaattt
240
gagggccagt gcaatggttt gccaagggtca cacaactagt tagtggaagg atccaggcat
300
tctaattcct ttctttcact aatacatttg gactgctcta cagaattact tctgtctgat
360
actatccact ttgaagagta gctagcatat agtagccatt tacttttggc tcaattaaaa
420
gcaaacattt ttgggacaaa atcaggcttt cctgattact tcttagataa cagagcccac
480
acagtattaa aacatgcagc ctttctttat gcaaaaagat tgaatatgga gccacttgaa
540

tcttaaactt cagtctgcag ctataaccaa tatcatcaga agttatacac aattggcaaa
 600
 agaatagctt attctgcccc aatacttgtc cagtcactag gatcatttca cttttttgaa
 660
 taccatttgc tttggggagg gaagtattgc cagaccgtga attcattatt acctctgac
 720
 a
 721

<210> 2028
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 2028
 Met Asn Ser Arg Ser Gly Asn Thr Ser Leu Pro Lys Ala Asn Gly Ile
 1 5 10 15
 Gln Lys Ser Glu Met Ile Leu Val Thr Gly Gln Val Phe Gly Gln Asn
 20 25 30
 Lys Leu Phe Phe Cys Gln Leu Cys Ile Thr Ser Asp Asp Ile Gly Tyr
 35 40 45
 Ser Cys Arg Leu Lys Phe Lys Ile Gln Val Ala Pro Tyr Ser Ile Phe
 50 55 60
 Leu His Lys Glu Arg Leu His Val Leu Ile Leu Cys Gly Leu Cys Tyr
 65 70 75 80
 Leu Arg Ser Asn Gln Glu Ser Leu Ile Leu Ser Gln Lys Cys Leu Leu
 85 90 95
 Leu Ile Glu Pro Lys Val Asn Gly Tyr Tyr Met Leu Ala Thr Leu Gln
 100 105 110
 Ser Gly

<210> 2029
 <211> 8028
 <212> DNA
 <213> Homo sapiens

<400> 2029
 nnggagtccta tgggtgattgg accagaagcc cgcgacggcg ggcggggatt ggctgcgcgc
 60
 tgggtcaggg aagcctggga aggggaggag gaaggagact agagcaggaa gagcagcggc
 120
 gaggcggcgg tgggtggctga gtccgtggtg gcagaggcga aggcgacagc tctagggggtt
 180
 ggcaccggcc ccgagaggag gatgcgggtc cggatagggc tgacgctgct gctgtgtgcg
 240
 gtgctgctga gcttggcctc ggcgtcctcg gatgaagaag gcagccagga tgaatcctta
 300
 gattccaaga ctactttgac atcagatgag tcagtaaagg accatactac tgcaggcaga
 360
 gtagttgctg gtcaaattatt tcttgattca gaagaatctg aattagaatc ctctattcaa
 420
 gaagaggaag acagcctcaa gagccaagag ggggaaagtg tcacagaaga tatcagcttt
 480

ctagagtctc caaatccaga aaacaaggac tatgaagagc caaagaaagt acggaaacca
540
gctttgaccg ccattgaagg cacagcacat ggggagccct gccacttccc ttttcttttc
600
ctagataagg agtatgatga atgtacatca gatgggaggg aagatggcag actgtggtgt
660
gctacaacct atgactacaa agcagatgaa aagtggggct tttgtgaaac tgaagaagag
720
gctgctaaga gacggcagat gcaggaagca gaaatgatgt atcaaactgg aatgaaaatc
780
cttaatggaa gcaataagaa aagccaaaaa agagaagcat atcgggtatct ccaaaaggca
840
gcaagcatga accataccaa agccctggag agagtgtcat atgctctttt atttggatgat
900
tacttgccac agaatatcca ggcagcgaga gagatgtttg agaagctgac tgaggaaggc
960
tctcccaagg gacagactgc tcttggcttt ctgtatgcct ctggacttgg tgttaattca
1020
agtcaggcaa aggctcttgt atattataca tttggagctc ttgggggcaa tctaatagcc
1080
cacatggttt tgggttacag atactgggct ggcacggcg tcctccagag ttgtgaatct
1140
gccctgactc actatcgtct tgttgccaat catgttgcta gtgatatctc gctaacagga
1200
ggctcagtag tacagagaat acggctgcct gatgaagtgg aaaatccagg aatgaacagt
1260
ggaatgctag aagaagattt gattcaatat taccagttcc tagctgaaaa aggtgatgta
1320
caagcacagg ttggtcttgg acaactgcac ctgcacggag ggcgtggagt agaacagaat
1380
catcagagag catttgacta cttcaattta gcagcaaata ctggcaattc acatgccatg
1440
gccttttttg gaaagatgta ttcggaagga agtgacattg tacctcagag taatgagaca
1500
gctctccact actttaagaa agctgctgac atgggcaacc cagttggaca gagtgggctt
1560
ggaatggcct acctctatgg gagaggagtt caagttaatt atgatctagc ccttaagtat
1620
ttccagaaag ctgctgaaca aggctgggtg gatgggcagc tacagcttgg ttccatgtac
1680
tataatggca ttggagtcaa gagagattat aaacaggcct tgaagtattt taatttagct
1740
tctcaggag gccatatctt ggctttctat aacctagctc agatgcatgc cagtggcacc
1800
ggcgtgatgc gatcatgtca cactgcagtg gagttgttta agaattgatg tgaacgaggc
1860
cgttggtctg aaaggcttat gactgcctat aacagctata aagatggcga ttacaatgct
1920
gcagtgatcc agtacctcct cctggctgaa cagggetatg aagtggcaca aagcaatgca
1980
gcctttattc ttgatcagag agaagcaagc attgtaggtg agaatgaaac ttatcccaga
2040
gctttgctac attggaacag ggccgcctct caaggctata ctgtggctag aattaagctc
2100

ggagactacc atttctatgg gtttggcacc gatgtagatt atgaaactgc atttattcat
2160
taccgtctgg cttctgagca gcaacacagt gcacaagcta tgtttaatct gggatatatg
2220
catgagaaag gactgggcat taaacaggat attcaccttg cgaaacgttt ttatgacatg
2280
gcagctgaag ccagcccaga tgcacaagtt ccagtcttcc tagccctctg caaattgggc
2340
gtcgtctatt tcttgagta catacgggaa acaaacattc gagatatgtt caccacaactt
2400
gatatggacc agcttttggg acctgagtgg gacctttacc tcatgaccat cattgcgctg
2460
ctgttgggaa cagtcatagc ttacaggcaa aggcagcacc aagacatgcc tgcacccagg
2520
cctccagggc cacggccagc tccaccccag caggaggggc caccagagca gcagccacca
2580
cagtaatagg cactgggtcc agccttgatc agtgacagcg aaggaagtta tctgctggga
2640
acacttgcac ttgatttagg accttgatc agtggtcacc tcccagaaga ggcacggcac
2700
aaggaagcat tgaattccta aagctgctta gaatctgatg cctttatttt cagggataag
2760
taactcttac ctaaactgag ctgaatgttt gtttcagtgc catatggaat aacaactttc
2820
agtggctttt ttttttcttt tctggaaaca tatgtgagac actcagagta atgtctactg
2880
tatccagcta tctttcttgg atccttttgg tcattatttc agtgtgcata agttcttaat
2940
gtcaaccatc ttttaaggtat tgtgcatcga cactaaaaac tgatcagtgt aaaaaggaaa
3000
accagttgc aagttaaac gtgttcgaaa gtctgaaaat agaacttgcc ttttaagtta
3060
aaaaaaaaaa aaaagctatc ttgaaaatgt tttggaactg cgataactga gaaacttctt
3120
accagtccac atgcaattaa acatattcag catatttggt attttaaaag ggagggttgg
3180
gaggtttctt attggtgatt gtcacacggt ataccatact cctctccttc aaagaatgaa
3240
aggccttggt aaggagtgtt ttgtgagctt tacttctttg gaatggaata tacttatgca
3300
aaaccttggt aactgactcc ttgcactaac gcgagtttgc cccacctact ctgtaatttg
3360
cttgtttgtt ttgaatataa cagagccttg atccagaagc cagaggatgg actaagtggg
3420
agaaattaga aaacaaaacg aactctgggt ggggtactac gatcacagac acagacatac
3480
ttttcctaaa gttgaagcat ttgttcccag gatttatttt actttgcatt tttttttgca
3540
caaagaacac atcaccttcc tgaattcttt aaatatgaaa tatcattgcc agggatatggc
3600
ttacagtgac tactattata atactaaaac tcagagaatc aaagatggat taaactcagt
3660
ggttgatgaa agccaaaacc tgtttgact gttctatact attcaggtat ctttttattt
3720

ctgatagttt tatattataa tagaaagcca gccactgctt agctatcata gtcaccattt
3780
tctcactggt aacattagga aaatcaaggc tactatgctt caggattgtc tggtaaata
3840
gtatgggaaa aaaactgaag agtttcaaca taattacaca cgtgaaataa ttacagctta
3900
aactgaattt gtatttcatt ttattgtcag atgggtggtg tcaccagcct gtatcttgtc
3960
tgagactgca ttcgtatctg agcagggtttt ctatgcctac tgatgtcagt atgtttatac
4020
taaccttcat gcttttttcc cagaatccct catctgccag aaaacttgaa aagtttattg
4080
cttgttaggt tgtactgctt tgatttttga agttggggta gtagttagaa ctagatttaa
4140
ctagtctata atgaacatga aggcttttat atatgaagtt gtataccttt ttgtgtttag
4200
agaattatgg gaaacctggt aagcaaaaact ttcctcccag ataattgctt ccaaattcga
4260
agagtttagt accaagagag ccatatgtat gaaagcgtat ctgtgaaagg taggaaactt
4320
accccccta agtgtaatgt tgcttttagc aactcttgta aatagtgaga cttgtttggt
4380
ctcttacatg tagagatttg agtgcagttg gtacagtact ttggtgtctc caccactgtc
4440
ccttctcccc gcttcaaaat aagtgtaatc cacggtagca gccacacttc cttcagaagg
4500
aactgttata atttatttaa aagttgaaaa accaccaag atgactacca actttcactt
4560
tttttcttct gccatccacc ctcatTTTTT ctttagcaag atttttatat ctaactttcc
4620
ttccctccat tgagtacgtg ctttgagaaa acatttctta aaacagtgtg tgccacctaa
4680
ggctggatgg gaaagtgcag tcttggtgtt catataaaaa acacacttct tattagttta
4740
cccacttgcc tttttctatt gttaatgttc tgaatttctt tttcttggtt tgtttctact
4800
tcattttaac cctgggtcac ttgctgccag cagtttgtga atgggtgtctt tcaaataact
4860
tagttcttat ggcttcactt aaagactgtc tcaaaaatac tttgtctctt tcttcttttt
4920
tgttcatggg acatggtacc taagcaaata ggagttgggt ttggtttttc tcctaaaata
4980
atgctcaata cttacctaat caaatggcat ccatttgaat aaaatgacaa taactaaagc
5040
tagttaatgt cagtgcatt aaactaactc caggattcag gagttttaat gttagaattt
5100
agatttaaca gatagagtgt ggcttcattt gtccatggta gccatctct cctaagacct
5160
tttctagtct gtcttctgc cttcgaactt gatgacagta aaacctgtt tagtattctc
5220
ttgtgcattt ggtttggttg ttagccgact gtcttgaaac tattcatttt gcttctagtt
5280
ttattttaca gaggtagcat tgggtgggtt tttttttttt ttctgtctct gtgtttgaag
5340

tttcagtttc tgttttctag gtaaggctta tttttgatta gcagtcaatg gcaaagaaaa
5400
agtaaatcaa agatgacttc ttttcaaaat gtatggccct tttattgcac ttttaactca
5460
gatgaattta taaattatta atcttgatac taaggatttg ttactttttt gcatattagg
5520
ttaattttta ccttacatgt gagagtctta ccactaagcc attctgtctc tgtactgttg
5580
ggaagttttg gaaacccttg ccagtgatct ggtgatgatc tgatgattta tttaaagagc
5640
cgttgatgcc tccaggaaac ttaagtattt tattaatata tatataggaa ttttttttta
5700
ttttgctttg tctttctctc ccttctttta tctcatgtt cattcttcaa accagtgttt
5760
tggaagtatg catgcaggcc tataaatgaa aaacacaatt ctttatgtgt atagcatgtg
5820
tattaatgtc taactacata cgcaaaaact tcttttacag aggttcggac taacatttca
5880
catgcacatt tcaaaacaag atgtgtcatg aaaacagccc ctttacctgc caagacaagc
5940
agggtatat ttcagtgaca gctgatattt gttttgaaag tgaatctcat aatatatata
6000
tgtattacac attattatga ctagaagtat gtaagaaatg atcagaacaa aagaaaattt
6060
ctattttcat gcaaataatt ttcatcagtc atcactctca aatataagtt aaaatataac
6120
actcctgaat gcctgaggca cgatctggat tttaaatgtg tggatttcat tgaaaagaag
6180
ctctccaccc acttgggtatt tcaagaaaat ttaaaacgat cccaaggaaa gatgatttgt
6240
atgttaaagt gactgcacaa gtaaaagtcc aatgttgtgt gcatgaaaag gattccttgg
6300
ttatgtgcag ggaatcatct cacatgctgt ttttctatt tggtttgaga aacaggctga
6360
cactattctc tttgattaga aaataaactc ataaaactca taatgttgat ataataaga
6420
tgtaaccact ataaatatgt agaagaggaa gttttaaaag accttaagct ggcattgtga
6480
aggaacacca tggtagactc tttttgtaaa tgtattttgt atttaatgaa atgcagtata
6540
aaggttggtg aagtgttaata taattgtgta aacaaatcct gttaatagag agatgtacag
6600
aatcgttttg tactgtatct tgaaacttgt gaaataaaga ttccacctct ggttatcctg
6660
tatgctgtaa tataaccacaa ccaagcacco tttccagaca gacttttttt aagctgaatg
6720
aatccaattt tttaatgttt tttggaaatt cagaagcttc tgaaaacatt cacttgtggc
6780
aatttgaatt tatctttcat tttaaactcc tgaaattcag atttttacaa gtccaatatt
6840
gccctaggga gaacatgaat ttgctaagaa atgttatctt ttaaactctt gatatctttg
6900
tcttgaagca gccttgatat gtagtaagcg tgattcactt tagcctgatt ataattatt
6960

ttatctaaag tttgtttatg cattgccttg tcccaggaat tttttaagag gacttgcaga
 7020
 gacacgtacc acacagtaac atttagacta aatatgctct gagtaaagga gaaatgaaaa
 7080
 aatattaaat caagagtga catgtacaca aagtgaatt ggaagtgggc tacaaattta
 7140
 gccccagct tcccagcagg caactcaaag aggttaactga ggtaaaatgt tccagctcag
 7200
 aagcattgga tcttgataa aaagcctaca tgatgcaaac tgtggcaact gagatgtcag
 7260
 atctcaagat ctcaaattgt acttggtggga gcacagtcag tgaccccaaga tgaccttgac
 7320
 tgacctaaaa gttgtggggg aagtcggatg tcagagcctt aacaccagca ggtgaccatc
 7380
 caacctgggg caatgcctgc ctgttcacca cttagcctct ttctggcaag tcattagaat
 7440
 gtctccatc ttcattggct gcaacttgat gagctacagc ctctttccta acttccttta
 7500
 tgatgctagt ttaggttggt tataccagct tggaagtatg cttagattaa gttacagcag
 7560
 atacacaaat tagatgcaag taaaaaaaaat cagaatttct gtagtagaaa ctacgaaaaa
 7620
 taaaaaggaa agtttttact ttttgggtat ttttttacga ataagaaaaa gtgagcgta
 7680
 atcagttcaa aaggaggtac tgctgtgtaa tgggctttgt acgttccttc tcatgtcact
 7740
 tacgtcacta cttcgccatc aaattgaaca agcttttaat tagatcctga aaattcacta
 7800
 tgctagtagt ttattggtag tattatattt tgagtagaac tctgattttc cctagaggcc
 7860
 aaattctttt tatctgggtt aatttctttt aaacataaca atgttaatgc tgaattgtat
 7920
 attaaatccc atttctaaaa accacacaat tttttctcat gtaagttgag tggaatgtgg
 7980
 ttagttaact gaatttgga tggtcatata aataatttgt tgctgctc
 8028

<210> 2030

<211> 794

<212> PRT

<213> Homo sapiens

<400> 2030

Met Arg Val Arg Ile Gly Leu Thr Leu Leu Leu Cys Ala Val Leu Leu
 1 5 10 15
 Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp Glu Ser
 20 25 30
 Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val Lys Asp His
 35 40 45
 Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe Leu Asp Ser Glu
 50 55 60
 Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu Asp Ser Leu Lys
 65 70 75 80
 Ser Gln Glu Gly Glu Ser Val Thr Glu Asp Ile Ser Phe Leu Glu Ser

85								90				95				
Pro	Asn	Pro	Glu	Asn	Lys	Asp	Tyr	Glu	Glu	Pro	Lys	Lys	Val	Arg	Lys	
100								105				110				
Pro	Ala	Leu	Thr	Ala	Ile	Glu	Gly	Thr	Ala	His	Gly	Glu	Pro	Cys	His	
115				120				125								
Phe	Pro	Phe	Leu	Phe	Leu	Asp	Lys	Glu	Tyr	Asp	Glu	Cys	Thr	Ser	Asp	
130				135				140								
Gly	Arg	Glu	Asp	Gly	Arg	Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	
145					150				155				160			
Ala	Asp	Glu	Lys	Trp	Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	
				165				170				175				
Arg	Arg	Gln	Met	Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	
				180				185				190				
Ile	Leu	Asn	Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	
195				200				205								
Tyr	Leu	Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	
210				215				220								
Val	Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln	
225					230				235				240			
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro	Lys	
				245				250				255				
Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly	Val	Asn	
				260				265				270				
Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly	Ala	Leu	Gly	
275				280				285								
Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Gly	Tyr	Arg	Tyr	Trp	Ala	Gly	
290				295				300								
Ile	Gly	Val	Leu	Gln	Ser	Cys	Glu	Ser	Ala	Leu	Thr	His	Tyr	Arg	Leu	
305					310				315				320			
Val	Ala	Asn	His	Val	Ala	Ser	Asp	Ile	Ser	Leu	Thr	Gly	Gly	Ser	Val	
				325				330				335				
Val	Gln	Arg	Ile	Arg	Leu	Pro	Asp	Glu	Val	Glu	Asn	Pro	Gly	Met	Asn	
				340				345				350				
Ser	Gly	Met	Leu	Glu	Glu	Asp	Leu	Ile	Gln	Tyr	Tyr	Gln	Phe	Leu	Ala	
355				360				365								
Glu	Lys	Gly	Asp	Val	Gln	Ala	Gln	Val	Gly	Leu	Gly	Gln	Leu	His	Leu	
370				375				380								
His	Gly	Gly	Arg	Gly	Val	Glu	Gln	Asn	His	Gln	Arg	Ala	Phe	Asp	Tyr	
385					390				395				400			
Phe	Asn	Leu	Ala	Ala	Asn	Ala	Gly	Asn	Ser	His	Ala	Met	Ala	Phe	Leu	
				405				410				415				
Gly	Lys	Met	Tyr	Ser	Glu	Gly	Ser	Asp	Ile	Val	Pro	Gln	Ser	Asn	Glu	
				420				425				430				
Thr	Ala	Leu	His	Tyr	Phe	Lys	Lys	Ala	Ala	Asp	Met	Gly	Asn	Pro	Val	
435				440				445								
Gly	Gln	Ser	Gly	Leu	Gly	Met	Ala	Tyr	Leu	Tyr	Gly	Arg	Gly	Val	Gln	
450				455				460								
Val	Asn	Tyr	Asp	Leu	Ala	Leu	Lys	Tyr	Phe	Gln	Lys	Ala	Ala	Glu	Gln	
465					470				475				480			
Gly	Trp	Val	Asp	Gly	Gln	Leu	Gln	Leu	Gly	Ser	Met	Tyr	Tyr	Asn	Gly	
				485				490				4				

515	520	525
His Ala Ser Gly Thr Gly Val Met Arg Ser Cys	His Thr Ala Val Glu	
530	535	540
Leu Phe Lys Asn Val Cys Glu Arg Gly Arg Trp Ser Glu Arg Leu Met		
545	550	555
Thr Ala Tyr Asn Ser Tyr Lys Asp Gly Asp Tyr Asn Ala Ala Val Ile		
565	570	575
Gln Tyr Leu Leu Leu Ala Glu Gln Gly Tyr Glu Val Ala Gln Ser Asn		
580	585	590
Ala Ala Phe Ile Leu Asp Gln Arg Glu Ala Ser Ile Val Gly Glu Asn		
595	600	605
Glu Thr Tyr Pro Arg Ala Leu Leu His Trp Asn Arg Ala Ala Ser Gln		
610	615	620
Gly Tyr Thr Val Ala Arg Ile Lys Leu Gly Asp Tyr His Phe Tyr Gly		
625	630	635
Phe Gly Thr Asp Val Asp Tyr Glu Thr Ala Phe Ile His Tyr Arg Leu		
645	650	655
Ala Ser Glu Gln Gln His Ser Ala Gln Ala Met Phe Asn Leu Gly Tyr		
660	665	670
Met His Glu Lys Gly Leu Gly Ile Lys Gln Asp Ile His Leu Ala Lys		
675	680	685
Arg Phe Tyr Asp Met Ala Ala Glu Ala Ser Pro Asp Ala Gln Val Pro		
690	695	700
Val Phe Leu Ala Leu Cys Lys Leu Gly Val Val Tyr Phe Leu Gln Tyr		
705	710	715
Ile Arg Glu Thr Asn Ile Arg Asp Met Phe Thr Gln Leu Asp Met Asp		
725	730	735
Gln Leu Leu Gly Pro Glu Trp Asp Leu Tyr Leu Met Thr Ile Ile Ala		
740	745	750
Leu Leu Leu Gly Thr Val Ile Ala Tyr Arg Gln Arg Gln His Gln Asp		
755	760	765
Met Pro Ala Pro Arg Pro Pro Gly Pro Arg Pro Ala Pro Pro Gln Gln		
770	775	780
Glu Gly Pro Pro Glu Gln Gln Pro Pro Gln		
785	790	

<210> 2031

<211> 662

<212> DNA

<213> Homo sapiens

<400> 2031

atcatcgaaa gcagcgccccg ccagcaggat tcgatttctc gccaaactgac ccagcagttc
60
atcagccaat ggcaggcggc tcacccggcg gatcagatca ccgtgcgtga cgtggcgctg
120
aaccccgctgc cgcacctgga cagcatctg ctcggcggct ggatgaaacc tgccgaacag
180
cgcagcgca tcgaacaggc ttcctggac cgctccaatc aattgaccga cgaattgctc
240
gccgcccagc tgctggtgat ggctgcaccg atgtacaact tcgctatccc cagcaccctc
300
aaagcctggc tggaccacgt gttgcgtgcc ggtgtgacct tcaagtacac cgccaccggc
360

cccagggat tgctgcacgg caagcgcgcg attgtgctga ccgctcgcg cggcattcat
 420
 accggcgcca gctccgatca ccaggaaccg tacctgcgcc aggtcatggc ctttatcggg
 480
 attcatgacg tcacgttcat tcatgccgaa ggggtgaact tgagcgggta cttccaggaa
 540
 aaaggcctta accacgcca ggcgttgctg gcgcaacttg tggcatgaac cgagtcaacg
 600
 gttaatcgtc acataatcgc cgggtgttta tatcgcttca cgcaaaccct tcaagtacgc
 660
 gt
 662

<210> 2032

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2032

Ile	Ile	Glu	Ser	Ser	Ala	Arg	Gln	Gln	Asp	Ser	Ile	Ser	Arg	Gln	Leu
1				5					10					15	
Thr	Gln	Gln	Phe	Ile	Ser	Gln	Trp	Gln	Ala	Ala	His	Pro	Ala	Asp	Gln
			20					25					30		
Ile	Thr	Val	Arg	Asp	Val	Ala	Leu	Asn	Pro	Val	Pro	His	Leu	Asp	Thr
		35					40					45			
His	Leu	Leu	Gly	Gly	Trp	Met	Lys	Pro	Ala	Glu	Gln	Arg	Ser	Ala	Ile
	50					55					60				
Glu	Gln	Ala	Ser	Leu	Asp	Arg	Ser	Asn	Gln	Leu	Thr	Asp	Glu	Leu	Leu
65					70					75				80	
Ala	Ala	Asp	Val	Leu	Val	Met	Ala	Ala	Pro	Met	Tyr	Asn	Phe	Ala	Ile
			85						90					95	
Pro	Ser	Thr	Leu	Lys	Ala	Trp	Leu	Asp	His	Val	Leu	Arg	Ala	Gly	Val
			100					105					110		
Thr	Phe	Lys	Tyr	Thr	Ala	Thr	Gly	Pro	Gln	Gly	Leu	Leu	His	Gly	Lys
		115					120					125			
Arg	Ala	Ile	Val	Leu	Thr	Ala	Arg	Gly	Gly	Ile	His	Thr	Gly	Ala	Ser
		130				135					140				
Ser	Asp	His	Gln	Glu	Pro	Tyr	Leu	Arg	Gln	Val	Met	Ala	Phe	Ile	Gly
145					150					155				160	
Ile	His	Asp	Val	Thr	Phe	Ile	His	Ala	Glu	Gly	Val	Asn	Leu	Ser	Gly
			165					170					175		
Asp	Phe	Gln	Glu	Lys	Gly	Leu	Asn	His	Ala	Lys	Ala	Leu	Leu	Ala	Gln
			180					185					190		
Leu	Val	Ala													
			195												

<210> 2033

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2033

aaattttaaa acggtcatca tttaacaggc gaagctgtaa aacgcagtct tgaagaggga
 60

atgaaaaaaaaa gtgatttgggt aaaaggatca cttcctatca aatcaatcaa cgctcatgga
 120
 caaaaagtca caatcaatac taaagaacct tatccagaat taaagtctga actcgcaagc
 180
 ccatttgctg ctatatacga cacaaaagct aaaaacaaag taactgatca acctgttgggt
 240
 acggggtcctt atcaaattga cagttataaa cgttcgcaaa aaatcggtatt aaaacaattc
 300
 aaagactact ggcaagggtac gccaaaatta aaaagaatta atgtcactta tcatgaagat
 360
 ggtaatantc gtgttgatca
 380

<210> 2034

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2034

Met	Lys	Lys	Ser	Asp	Leu	Leu	Lys	Gly	Ser	Leu	Pro	Ile	Lys	Ser	Ile
1				5				10					15		
Asn	Ala	His	Gly	Gln	Lys	Val	Thr	Ile	Asn	Thr	Lys	Glu	Pro	Tyr	Pro
			20					25				30			
Glu	Leu	Lys	Ser	Glu	Leu	Ala	Ser	Pro	Phe	Ala	Ala	Ile	Tyr	Asp	Thr
		35					40					45			
Lys	Ala	Lys	Asn	Lys	Val	Thr	Asp	Gln	Pro	Val	Gly	Thr	Gly	Pro	Tyr
		50				55					60				
Gln	Ile	Asp	Ser	Tyr	Lys	Arg	Ser	Gln	Lys	Ile	Val	Leu	Lys	Gln	Phe
65					70					75				80	
Lys	Asp	Tyr	Trp	Gln	Gly	Thr	Pro	Lys	Leu	Lys	Arg	Ile	Asn	Val	Thr
				85					90					95	
Tyr	His	Glu	Asp	Gly	Asn	Xaa	Arg	Val	Asp						
			100					105							

<210> 2035

<211> 495

<212> DNA

<213> Homo sapiens

<400> 2035

ngaattcctt tactgcttgc aacacaggcc caagctactc gcagccatga tacttcctgt
 60
 cttcacttct ttcattgtatg tatgtatgta tgtatgtatg tatgtatgta tgtatgtatg
 120
 tatgctntaa tgttccccctt tcattctcgca tgtctccact tctgctgcta ttgctgttac
 180
 ttgtgtgttg gtgcacctaa tgggtgtccca tatttctctg atgctgtgtt catttttctt
 240
 gattctttct actgtctgggt cttcagtttg cataatccat attgttctct ctactagttc
 300
 actggtgctt ttgcctgcca gctctaattt actggttatcc ccttttagtga aattttttct
 360
 ttttttctct tctcattcca gttattatac agaactatcc aacttcaaga tttgtgggggt
 420

tttgttttgt ttgtttttga gaccccatct caaaaaaaaa aaaaaccagc tttctcctca
 480
 acttggggga acctt
 495

<210> 2036
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2036
 Xaa Ile Pro Leu Leu Leu Ala Thr Gln Ala Gln Ala Thr Arg Ser His
 1 5 10 15
 Asp Thr Ser Cys Leu His Phe Phe His Val Cys Met Tyr Val Cys Met
 20 25 30
 Tyr Val Cys Met Tyr Val Cys Met Tyr Ala Xaa Met Phe Pro Phe His
 35 40 45
 Leu Ala Cys Leu His Phe Cys Cys Tyr Cys Cys Tyr Leu Cys Val Gly
 50 55 60
 Ala Pro Asn Gly Val Pro Tyr Phe Ser Asp Ala Val Phe Ile Phe Leu
 65 70 75 80
 Asp Ser Phe Tyr Cys Leu Val Phe Ser Leu His Asn Pro Tyr Cys Ser
 85 90 95
 Leu Tyr

<210> 2037
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 2037
 acgcgtgaag ggaaggggga gaccccgga gaaatggaga aatgggggag cacacagacg
 60
 ggaagagtga ggttgagtg cctttccgc gctcatcttc cgtccccact ccacgcccag
 120
 caaatccaaa caccgcggcc tctggtggcc cgggcttcca tttcccctgg aggggcaagg
 180
 gcgtttcctc ttccgcccac ccggggcgct gagcgggggg aacagcgggc ggggctttgt
 240
 ggtcccgggg ggtccgagtg tgtgtcaggg gctggggcg gggatgggag cggcccctgg
 300
 gtatccctca cggtcctggg tcatgag
 327

<210> 2038
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2038
 Met Glu Lys Trp Gly Arg Thr Gln Thr Gly Arg Val Arg Leu Glu Cys
 1 5 10 15
 Leu Ser Arg Ala His Leu Pro Ser Pro Leu His Ala Gln Gln Ile Gln

[illegible]

```
<210> 2039
<211> 307
<212> DNA
<213> Homo sapiens
```

```
<400> 2039
accggtgata cactctgcga aagcggccgc gagcgaagcg ttcttggtct tcttcgagat
60
cgcgatgtat tgcccggaaa acagcggcct gatgccgtca ttgagaggct ctgggccaac
120
accggtacgg gcatatgcct gggcggcatt cttttggatg ttgcgaagaa aggacgcatt
180
cggcgtgccg aaagccaggg atccttcacc gtagaccttg gaccgatgga ggcccccggc
240
aatcgagtcc ttcgaaattc ccccttgga tacatgtcgg ccacgtcgt cagccagagt
300
aacgcgt
307
```

```
<210> 2040
<211> 94
<212> PRT
<213> Homo sapiens
```

<400> 2040																
Met	Ala	Asp	Met	Tyr	Ala	Lys	Gly	Glu	Phe	Arg	Arg	Thr	Arg	Leu	Pro	
1				5					10					15		
Gly	Ala	Ser	Ile	Gly	Pro	Arg	Ser	Thr	Val	Lys	Asp	Pro	Trp	Leu	Ser	
			20					25					30			
Ala	Arg	Arg	Met	Arg	Pro	Phe	Phe	Ala	Thr	Ser	Lys	Arg	Met	Pro	Pro	
			35				40					45				
Arg	His	Met	Pro	Val	Pro	Val	Leu	Ala	Gln	Ser	Leu	Ser	Met	Thr	Ala	
	50					55					60					
Ser	Ser	Arg	Cys	Phe	Pro	Gly	Asn	Thr	Ser	Arg	Ser	Arg	Arg	Arg	Pro	
65					70					75					80	
Arg	Thr	Leu	Arg	Ser	Arg	Pro	Leu	Ser	Gln	Ser	Gly	Ser	Pro			
				85					90							

```
<210> 2041
<211> 348
<212> DNA
<213> Homo sapiens
```

<400> 2041

nnccggcgat gcagggattc gcccgcgatg cgctcgaacc cggcgcgggg ggcgttcctc
 60
 gccagcttcc tgcggttcgc cagacgcac cccgaggcgg ggggtgcgcaa ttcgctcgcc
 120
 cagctggtcg ccaagctgac cctgcccggc atgcccgcaca tctaccaggg ctgcgagatg
 180
 tgggacctca gcctggtcga ccgggacaat cgccgccccg tcgactacga gacacgcgac
 240
 gcggccctgg ccggtgggt cgcgacccc cggaggaac gcgccgggc gctgcgcacc
 300
 ctgctgacgg attggcgag cggcgcggtc aagctggccg tgacgcgt
 348

<210> 2042

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2042

Xaa	Arg	Arg	Cys	Arg	Asp	Ser	Pro	Ala	Met	Arg	Ser	Asn	Pro	Ala	Arg
1			5					10					15		
Gly	Ala	Phe	Leu	Ala	Ser	Phe	Leu	Pro	Phe	Ala	Arg	Arg	Ile	Ala	Glu
		20					25					30			
Ala	Gly	Val	Arg	Asn	Ser	Leu	Ala	Gln	Leu	Val	Ala	Lys	Leu	Thr	Leu
		35				40				45					
Pro	Gly	Met	Pro	Asp	Ile	Tyr	Gln	Gly	Cys	Glu	Met	Trp	Asp	Leu	Ser
	50				55				60						
Leu	Val	Asp	Arg	Asp	Asn	Arg	Arg	Pro	Val	Asp	Tyr	Glu	Thr	Arg	Asp
65				70				75						80	
Ala	Ala	Leu	Ala	Gly	Trp	Val	Ala	Thr	Pro	Pro	Glu	Glu	Arg	Ala	Ala
			85				90						95		
Ala	Leu	Arg	Thr	Leu	Leu	Thr	Asp	Trp	Arg	Ser	Gly	Ala	Val	Lys	Leu
		100					105						110		
Ala	Val	Thr	Arg												
		115													

<210> 2043

<211> 712

<212> DNA

<213> Homo sapiens

<400> 2043

gatctgacgg tctcgactaa gcctgaccat tccgaggtca ccgacgccga ccttgccgctc
 60
 gaagattcgg tgcgcagagc cctgtctcga atgcgctccc gggatgccgt ccacggcgag
 120
 gaacgtgccg ataccgggga tggaccccgc cggatggatca ttgatccgat cgacggcact
 180
 gcgaattttc tgcgtggggg cccagtgtgg gccaccctca ttgccctcag cgtcgaggac
 240
 cagattgtcg catctgtggt ctctgtcct gccctcaagc gacgctgggt ggcagcccgt
 300

ggctcaggag catggtcggg caaatccctg gcctcagcga caccgatcca cgtctcgaat
 360
 gtgcgcaatc ttgccgacgc attcttgtcc tactcttcgc tgcacggatg ggtcgagagc
 420
 ggacgagggc acgggttcgg tgaactcatg cggtcggtgt ggcggacccg agccttcggc
 480
 gatttctggt cttacatgat ggtggcagaa ggtgtcgtcg atgtggcatg cgagccggaa
 540
 ctcagcctgc acgacatggc cgccctcgac gctatcgtca ccgaggcggg cggttaagttc
 600
 accggtctcg atggcaaaga cggcccgtgg tctgggaatg ctctggcgtc gaatggtttc
 660
 cttcatgacc aggccctagc catggtccag cctcaggagt gagcaccgat cg
 712

<210> 2044

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2044

Asp	Leu	Thr	Val	Ser	Thr	Lys	Pro	Asp	His	Ser	Glu	Val	Thr	Asp	Ala
1				5				10						15	
Asp	Leu	Ala	Val	Glu	Asp	Ser	Val	Arg	Arg	Ala	Leu	Ser	Arg	Met	Arg
			20					25					30		
Ser	Arg	Asp	Ala	Val	His	Gly	Glu	Glu	Arg	Ala	Asp	Thr	Gly	Asp	Gly
			35				40					45			
Pro	Arg	Arg	Trp	Ile	Ile	Asp	Pro	Ile	Asp	Gly	Thr	Ala	Asn	Phe	Leu
			50			55				60					
Arg	Gly	Val	Pro	Val	Trp	Ala	Thr	Leu	Ile	Ala	Leu	Ser	Val	Glu	Asp
65					70					75				80	
Gln	Ile	Val	Ala	Ser	Val	Val	Ser	Ala	Pro	Ala	Leu	Lys	Arg	Arg	Trp
				85				90						95	
Trp	Ala	Ala	Arg	Gly	Ser	Gly	Ala	Trp	Ser	Gly	Lys	Ser	Leu	Ala	Ser
			100				105						110		
Ala	Thr	Pro	Ile	His	Val	Ser	Asn	Val	Arg	Asn	Leu	Ala	Asp	Ala	Phe
			115				120					125			
Leu	Ser	Tyr	Ser	Ser	Leu	His	Gly	Trp	Val	Glu	Ser	Gly	Arg	Gly	His
			130			135					140				
Gly	Phe	Gly	Glu	Leu	Met	Arg	Ser	Val	Trp	Arg	Thr	Arg	Ala	Phe	Gly
145					150					155				160	
Asp	Phe	Trp	Ser	Tyr	Met	Met	Val	Ala	Glu	Gly	Val	Val	Asp	Val	Ala
				165					170					175	.
Cys	Glu	Pro	Glu	Leu	Ser	Leu	His	Asp	Met	Ala	Ala	Leu	Asp	Ala	Ile
				180				185					190		
Val	Thr	Glu	Ala	Gly	Gly	Lys	Phe	Thr	Gly	Leu	Asp	Gly	Lys	Asp	Gly
		195				200						205			
Pro	Trp	Ser	Gly	Asn	Ala	Leu	Ala	Ser	Asn	Gly	Phe	Leu	His	Asp	Gln
		210				215						220			
Ala	Leu	Ala	Met	Val	Gln	Pro	Gln	Glu							
225						230									

<210> 2045

<211> 406

<212> DNA

<213> Homo sapiens

<400> 2045

```

nnttgacac cggcgactat gccgccaccg cacggatcaa tcgcggaccc agggcagggg
60
atgcgccgga tgggcgacgg tgatggaccg ggcgctggac ctgggcggtc gcttcgacga
120
cantacaggc tttggccgag gcgggttggga agaaaccggt caaccgggtgg tttggccccg
180
catcaatgcc cagaaccaga agccttgccg attcgtccca ggccgttcaa ggccgatggc
240
gagatcgtcg cgatgactgg cgacggtgtc aacgacgccc cctcgctcaa ggcgggccat
300
atcgggtgtc ccatggacaa acgcggcacc gacgtcgcgc gcgaggcttc cgccatggtc
360
ctgctcgagg atgattttgg atcgatcggt cagtcggtcc ggctcg
406

```

<210> 2046

<211> 135

<212> PRT

<213> Homo sapiens

<400> 2046

```

Xaa Trp Thr Pro Ala Thr Met Pro Pro Pro His Gly Ser Ile Ala Asp
1      5      10      15
Pro Gly Gln Gly Met Arg Arg Met Gly Asp Gly Asp Gly Pro Gly Ala
20     25     30
Gly Pro Gly Arg Ser Leu Arg Arg Xaa Tyr Arg Leu Trp Pro Arg Arg
35     40     45
Val Gly Arg Asn Arg Ser Thr Gly Gly Leu Ala Pro His Gln Cys Pro
50     55     60
Glu Pro Glu Ala Leu Arg Ile Arg Pro Arg Pro Phe Lys Ala Asp Gly
65     70     75     80
Glu Ile Val Ala Met Thr Gly Asp Gly Val Asn Asp Ala Pro Ser Leu
85     90     95
Lys Ala Ala His Ile Gly Val Ala Met Asp Lys Arg Gly Thr Asp Val
100    105    110
Ala Arg Glu Ala Ser Ala Met Val Leu Leu Glu Asp Asp Phe Gly Ser
115    120    125
Ile Val Gln Ser Val Arg Leu
130    135

```

<210> 2047

<211> 796

<212> DNA

<213> Homo sapiens

<400> 2047

```

aagcttttga acgagacccc tgagctctgg gttcagcccc gaggaagccc agcaacagga
60
tgaggaattt gagaagaaga ttccaagtgt ggaagacagc cttggagagg gcagcagggg
120

```

tgctggccgg ccaggagaga gaggatccgg gggcttggtc agtcctagca ctgccacgt
 180
 gccggatggg gcactcgggc agagagacca gacgagctgg caaaacagtg atgctagcca
 240
 ggaggtggga gggcatcagg agagacagca ggcaggggct cagggccctg gcagtgtga
 300
 cctggaagat ggggagatgg gaaagcgagg ctgggtcggg gagtttagcc tcagtgttg
 360
 cccccagcga gaggcagcat ttagcccagg gcagcaggac tggagccggg acttctgcat
 420
 cgaggccagt gagaggagct atcagtttgg catcattggc aacgacagag tgagtggg
 480
 tggcttttagc ccttctagca agatggaagg tggtcacttt gtgcctcctg ggaagaccac
 540
 agctggctcg gtggactgga ctgaccagct gggcttcagg aacttggaag tgtccagctg
 600
 tgtgggttct gggggctcga gcgaggccag ggagagtgcc gtgggacaga tgggctggc
 660
 aggtggcctg agcttgagag acatgaacct gaccggctgt ttggaaagtg gagggctga
 720
 agagccgggg ggaatcggaa ttggggagaa ggactggact tctgatgtta atgtgaagag
 780
 caaagatttg gctgag
 796

<210> 2048

<211> 160

<212> PRT

<213> Homo sapiens

<400> 2048

Met	Gly	Lys	Arg	Gly	Trp	Val	Gly	Glu	Phe	Ser	Leu	Ser	Val	Gly	Pro
1				5					10					15	
Gln	Arg	Glu	Ala	Ala	Phe	Ser	Pro	Gly	Gln	Gln	Asp	Trp	Ser	Arg	Asp
			20					25					30		
Phe	Cys	Ile	Glu	Ala	Ser	Glu	Arg	Ser	Tyr	Gln	Phe	Gly	Ile	Ile	Gly
		35					40					45			
Asn	Asp	Arg	Val	Ser	Gly	Ala	Gly	Phe	Ser	Pro	Ser	Ser	Lys	Met	Glu
	50					55					60				
Gly	Gly	His	Phe	Val	Pro	Pro	Gly	Lys	Thr	Thr	Ala	Gly	Ser	Val	Asp
65					70					75				80	
Trp	Thr	Asp	Gln	Leu	Gly	Leu	Arg	Asn	Leu	Glu	Val	Ser	Ser	Cys	Val
			85						90					95	
Gly	Ser	Gly	Gly	Ser	Ser	Glu	Ala	Arg	Glu	Ser	Ala	Val	Gly	Gln	Met
		100					105						110		
Gly	Trp	Ser	Gly	Gly	Leu	Ser	Leu	Arg	Asp	Met	Asn	Leu	Thr	Gly	Cys
	115					120						125			
Leu	Glu	Ser	Gly	Gly	Ser	Glu	Pro	Gly	Gly	Ile	Gly	Ile	Gly	Glu	
	130				135					140					
Lys	Asp	Trp	Thr	Ser	Asp	Val	Asn	Val	Lys	Ser	Lys	Asp	Leu	Ala	Glu
145					150					155					160

<210> 2049

<211> 516

<212> DNA

<213> Homo sapiens

<400> 2049

cgcgtcgctt acggtgcgct gaataccagc ctgctggcgc tggcggtcag cttcgcgtcg
 60
 ctgttcctcg ggatagtgtt cgggctgatg ccacgtctga tgtgcggggg gattgaactg
 120
 gccaacgctc ccccgccaat cggcctgggc ctgttagtag tcgccattag cggcccttca
 180
 gcctacgggtg ccgcctgtgc ggtgatgttg gtcagttggg ctccgctggc cgcccattgt
 240
 gcttcgttgt tggcggaagc ccgcacgcag ccctatatcc gcatgttgcc ggtattgggc
 300
 gtcggccgat ggcgcacgct gaccactac ctgctgccgg cgctctctgc tcccctgctg
 360
 cgccacgcca tgttgcgctt gccgggcatt gcgctggcgc tggcggcctt gggttttttt
 420
 ggtcttgggc cgcagccacc cagtgcagaa tgggggctgg tgctggcgga aggcattgcct
 480
 tatctcgaac gggcgccctg gggagtctcg gcaccg
 516

<210> 2050

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2050

Arg	Val	Ala	Tyr	Gly	Ala	Leu	Asn	Thr	Ser	Leu	Leu	Ala	Leu	Ala	Val
1				5				10					15		
Ser	Phe	Ala	Ser	Leu	Phe	Leu	Gly	Ile	Val	Phe	Gly	Leu	Met	Pro	Arg
			20					25					30		
Leu	Met	Cys	Gly	Val	Ile	Glu	Leu	Ala	Asn	Ala	Pro	Pro	Pro	Ile	Ala
			35					40					45		
Leu	Gly	Leu	Leu	Val	Val	Ala	Ile	Ser	Gly	Pro	Ser	Ala	Tyr	Gly	Ala
			50					55					60		
Ala	Cys	Ala	Val	Met	Leu	Val	Ser	Trp	Ala	Pro	Leu	Ala	Ala	His	Cys
65						70				75				80	
Ala	Ser	Leu	Leu	Ala	Glu	Ala	Arg	Thr	Gln	Pro	Tyr	Ile	Arg	Met	Leu
						85				90				95	
Pro	Val	Leu	Gly	Val	Gly	Arg	Trp	Arg	Thr	Leu	Thr	His	Tyr	Leu	Leu
			100					105					110		
Pro	Ala	Leu	Ser	Ala	Pro	Leu	Leu	Arg	His	Ala	Met	Leu	Arg	Leu	Pro
			115					120				125			
Gly	Ile	Ala	Leu	Ala	Leu	Ala	Ala	Leu	Gly	Phe	Phe	Gly	Leu	Gly	Pro
			130					135				140			
Gln	Pro	Pro	Ser	Ala	Glu	Trp	Gly	Leu	Val	Leu	Ala	Glu	Gly	Met	Pro
145						150				155				160	
Tyr	Leu	Glu	Arg	Ala	Pro	Trp	Gly	Val	Leu	Ala	Pro				
						165				170					

<210> 2051

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2051

gagcaaaact atcggttctac cggcaatatt ctgaaaagtg ccaaccaact tatttcgaat
 60
 aatagtgatc gtctcggtaa gaatttatgg accgacgggtg aaatggggga gccagtaggt
 120
 atttatgcag catttaatga attagatgag gcaaaaatttg tggcgtctca aatccaaaat
 180
 tgggtagatg atgggtgggga attagatgat tgtgctgttt tatatcgtag taatagccaa
 240
 tctcgtgtta ttgaagaagc cttgattcgt tgccaaattc cttatcgaat ttatggcggg
 300
 atgcgattct tcgaacgcca agaaattaaa gatgcgttgg catatttacg ttttaattaat
 360
 aatcgtcaag atgatgccgc atttgagcgt gtgattaata cgctacgcg t
 411

<210> 2052

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2052

Glu	Gln	Asn	Tyr	Arg	Ser	Thr	Gly	Asn	Ile	Leu	Lys	Ser	Ala	Asn	Gln
1			5					10						15	
Leu	Ile	Ser	Asn	Asn	Ser	Asp	Arg	Leu	Gly	Lys	Asn	Leu	Trp	Thr	Asp
		20					25					30			
Gly	Glu	Met	Gly	Glu	Pro	Val	Gly	Ile	Tyr	Ala	Ala	Phe	Asn	Glu	Leu
	35					40					45				
Asp	Glu	Ala	Lys	Phe	Val	Ala	Ser	Gln	Ile	Gln	Asn	Trp	Val	Asp	Asp
	50				55					60					
Gly	Gly	Glu	Leu	Asp	Asp	Cys	Ala	Val	Leu	Tyr	Arg	Ser	Asn	Ser	Gln
65				70					75					80	
Ser	Arg	Val	Ile	Glu	Glu	Ala	Leu	Ile	Arg	Cys	Gln	Ile	Pro	Tyr	Arg
			85					90						95	
Ile	Tyr	Gly	Gly	Met	Arg	Phe	Phe	Glu	Arg	Gln	Glu	Ile	Lys	Asp	Ala
		100						105					110		
Leu	Ala	Tyr	Leu	Arg	Leu	Ile	Asn	Asn	Arg	Gln	Asp	Asp	Ala	Ala	Phe
		115					120					125			
Glu	Arg	Val	Ile	Asn	Thr	Pro	Thr	Arg							
	130						135								

<210> 2053

<211> 287

<212> DNA

<213> Homo sapiens

<400> 2053

nccatggaag ccttcaatct tgtaagagaa agtgaacagc tgttttccat atgccaaatc
 60
 ccgctcctct gctggatcct gtgtaccagt ctgaagcaag agatgcagaa aggaaaagac
 120

ctggccctga cctgccagag cactacctct gtgtactcct ctttcgtctt taacctgttc
 180
 acacctgagg gtgccgaggg cccgactccg caaaccagc accagctgaa ggccctgtgc
 240
 tccctggctg cagagggat gtggacagac acatttgagt tttgtga
 287

<210> 2054

<211> 79

<212> PRT

<213> Homo sapiens

<400> 2054

Ile	Cys	Gln	Ile	Pro	Leu	Leu	Cys	Trp	Ile	Leu	Cys	Thr	Ser	Leu	Lys
1				5					10					15	
Gln	Glu	Met	Gln	Lys	Gly	Lys	Asp	Leu	Ala	Leu	Thr	Cys	Gln	Ser	Thr
			20					25					30		
Thr	Ser	Val	Tyr	Ser	Ser	Phe	Val	Phe	Asn	Leu	Phe	Thr	Pro	Glu	Gly
		35					40					45			
Ala	Glu	Gly	Pro	Thr	Pro	Gln	Thr	Gln	His	Gln	Leu	Lys	Ala	Leu	Cys
	50					55					60				
Ser	Leu	Ala	Ala	Glu	Gly	Met	Trp	Thr	Asp	Thr	Phe	Glu	Phe	Cys	
65					70					75					

<210> 2055

<211> 298

<212> DNA

<213> Homo sapiens

<400> 2055

nnacgcgttg ttatgaacaa tgacggtgtc ctctaccccg atacctgcgt ggggtactgat
 60
 tcccacacca ccattgaaaa tggctcttggc attctgggct ggggcgtcgg tggatttgaa
 120
 gccgaggctg ctatgcttgg ccagcccatc tccatgctta tccccgtgt tgttggcttt
 180
 aaacttactg gccaaacaca gccgggtgtc accgctacag atgttgttct taccattact
 240
 gatattcttc gccagcatgg tgtgggtgga aaattcgggg aattctatgg gggaagcg
 298

<210> 2056

<211> 99

<212> PRT

<213> Homo sapiens

<400> 2056

Xaa	Arg	Val	Val	Met	Asn	Asn	Asp	Gly	Val	Leu	Tyr	Pro	Asp	Thr	Cys
1				5					10					15	
Val	Gly	Thr	Asp	Ser	His	Thr	Thr	Met	Glu	Asn	Gly	Leu	Gly	Ile	Leu
			20					25				30			
Gly	Trp	Gly	Val	Gly	Gly	Ile	Glu	Ala	Glu	Ala	Ala	Met	Leu	Gly	Gln
		35				40						45			
Pro	Ile	Ser	Met	Leu	Ile	Pro	Arg	Val	Val	Gly	Phe	Lys	Leu	Thr	Gly

50 55 60
 Gln Thr Gln Pro Gly Val Thr Ala Thr Asp Val Val Leu Thr Ile Thr
 65 70 75 80
 Asp Met Leu Arg Gln His Gly Val Gly Gly Lys Phe Gly Glu Phe Tyr
 85 90 95
 Gly Gly Ser

<210> 2057
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 2057
 acgcgtcccc acagtaccga ctataacgga ggaaactatc aggaacggta taaaatttta
 60
 gcagaaattc gtaaggctct tgaagacgga gatcgccaaa aagccaaacg attagctgaa
 120
 caaaatctag ttggacccaa caacgcccag tatggctcgtt atctagcctt tggatgatc
 180
 ttcatggtct tcaataacca gaaaaagggg ctggatacag ttacagacta tcaccgtggt
 240
 ttggatatca cagaagccac tactacaact tcttacaccc aagatggaac gacctttaa
 300
 agagaaacct tctcaagtta ccctgatgat gttactgtta ctcaattgac caaaaaggg
 360
 gacaaaaaac ttgattttac agtttggaaat agcttaacag aagatttact tgctaacgga
 420
 gactactcag cggaatattc taactacaag agtggccatg ttacgacaga cccaaatggt
 480
 atcctactaa aaggtacagt caaagataat ggccctccagt tcgcatacta tctaggaatt
 540
 aaaacggacg gaaaagttac tgttcatga
 569

<210> 2058
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 2058
 Met Val Phe Asn Asn Gln Lys Lys Gly Leu Asp Thr Val Thr Asp Tyr
 1 5 10 15
 His Arg Gly Leu Asp Ile Thr Glu Ala Thr Thr Thr Ser Tyr Thr
 20 25 30
 Gln Asp Gly Thr Thr Phe Lys Arg Glu Thr Phe Ser Ser Tyr Pro Asp
 35 40 45
 Asp Val Thr Val Thr His Leu Thr Gln Lys Gly Asp Lys Lys Leu Asp
 50 55 60
 Phe Thr Val Trp Asn Ser Leu Thr Glu Asp Leu Leu Ala Asn Gly Asp
 65 70 75 80
 Tyr Ser Ala Glu Tyr Ser Asn Tyr Lys Ser Gly His Val Thr Thr Asp
 85 90 95
 Pro Asn Gly Ile Leu Leu Lys Gly Thr Val Lys Asp Asn Gly Leu Gln

	100		105		110										
Phe	Ala	Ser	Tyr	Leu	Gly	Ile	Lys	Thr	Asp	Gly	Lys	Val	Thr	Val	His
	115				120						125				

<210> 2059
 <211> 644
 <212> DNA
 <213> Homo sapiens

<400> 2059
 gaattcgtgc caccgtgcc atacttcgcc acgcaacaga gtgccgtcag cggattgggc
 60
 agcaatcgac ctgtaggact cagccatgat cgactgggca tcctcgtata gtcgcgatgc
 120
 cgcaaccgcc tgcgcttcca agcctgcagc gacgtaagag gccctctcac aactgaacc
 180
 gatcgctcca gacaacgtgg aagcgataac ctgcgctcgc ttctgctgat tctgggcca
 240
 gctcgacaag aagaaccgca gaggggagac ggcttggtca gggagcgac cttcagcgtt
 300
 cgtcttggtc tccgggacag caaaaagcgg ggaatcagcc aggccacgct ccgtcatgag
 360
 tcggccgagg tccgcccgtta cctctctcat ggcttcaca ggaacgcggt cacacaccac
 420
 cgcgatcgac gcggtgctct cttgagcctc gttgaggaaa tcccacggca cagcgtcagc
 480
 gtagcgggct gctgagggtga caaagatcca cagatccgag gcctggagca actgagccgc
 540
 cagatcacga ttgcccgtca ccacagagtc gatgtccggg gcatcgagga tggccaaacc
 600
 tcgcggaatc cttgactccg cgacgagctg caaactcgac gcgt
 644

<210> 2060
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 2060
 Met Arg Glu Val Pro Ala Asp Leu Gly Arg Leu Met Thr Glu Arg Gly
 1 5 10 15
 Leu Ala Asp Ser Pro Leu Phe Ala Val Pro Glu Thr Lys Thr Asn Ala
 20 25 30
 Glu Gly Ala Leu Pro Asp Gln Ala Val Ala Pro Leu Arg Phe Phe Leu
 35 40 45
 Ser Ser Leu Ala Gln Asn Gln Gln Lys Arg Arg Glu Val Ile Ala Ser
 50 55 60
 Thr Leu Ser Gly Ala Ile Gly Ser Val Cys Glu Arg Ala Ser Tyr Val
 65 70 75 80
 Ala Ala Gly Leu Glu Ala Gln Ala Val Ala Ala Ser Arg Leu Tyr Glu
 85 90 95
 Asp Ala Gln Ser Ile Met Ala Glu Ser Tyr Arg Ser Ile Ala Ala Gln
 100 105 110
 Ser Ala Asp Gly Thr Leu Leu Arg Gly Glu Val Leu Ala Arg Trp His

115 120 125
 Glu Phe
 130

 <210> 2061
 <211> 481
 <212> DNA
 <213> Homo sapiens

 <400> 2061
 gttaacctgg taaggagagc gacacaggaa ggtgcagggg ttgccatggt gtggccccag
 60
 atgctgtgat tacgcgccag ccccgtcaca ccgtacgggt ggtaggactg ggcaaagaag
 120
 acgccgccac ctggatgcac tgaggtgtgc acagccacgt ggagatgatg ctggggggctc
 180
 acggtgactc tcaggaggcc ctggcctggc ctatctggag ctttctctgt gaaatgagggc
 240
 tggtaacgcc cactagcagg gttgtagggg acatggatct gtggccacct cctcaagggt
 300
 tgccacacgc accaggtcct gactgggagt ccggccccca gggcctgtgg atggctggcc
 360
 tgggccccagc ctccgcccc aagggtgtgtg gcacctggca tgtgcccgcg agttggggcc
 420
 ggctgggtggg aagggtgtgtg tcagggtggcg gagcctcggt gccaggatct cactcacgcg
 480
 t
 481

 <210> 2062
 <211> 133
 <212> PRT
 <213> Homo sapiens

 <400> 2062
 Met Pro Gly Ala Ser Thr Leu Gly Gly Gly Gly Trp Ala Gln Ala Ser
 1 5 10 15
 His Pro Gln Ala Leu Gly Ala Gly Leu Pro Val Arg Thr Trp Cys Val
 20 25 30
 Trp Gln Pro Leu Arg Arg Trp Pro Gln Ile His Val Pro Tyr Asn Pro
 35 40 45
 Ala Ser Gly Arg Tyr Gln Pro His Phe Thr Glu Lys Ala Pro Asp Arg
 50 55 60
 Pro Gly Gln Gly Leu Leu Arg Val Thr Val Ser Pro Gln His His Leu
 65 70 75 80
 His Val Ala Val His Thr Ser Val His Pro Gly Gly Gly Val Phe Phe
 85 90 95
 Ala Gln Ser Tyr His Pro Tyr Gly Val Thr Gly Leu Ala Arg Asn His
 100 105 110
 Ser Ile Trp Gly His Thr Met Ala Thr Pro Ala Pro Ser Cys Val Ala
 115 120 125
 Leu Leu Thr Arg Leu
 130

<210> 2063
 <211> 419
 <212> DNA
 <213> Homo sapiens

<400> 2063
 gccggcgccg tcgagcgcggt gcctttcaat atcgaggccc aagacatggt gctgctcatc
 60
 gcggacacca atgccccgca catgctttcc gacggccaat acgcctcccg ccggggcatc
 120
 atcgacgccg tccaatctgc cgccggttgc tccatccgcy agatctcgaa tgcggtggac
 180
 tttgccgcca ccgtcaatcc cgccgagggc gaactctatc gccgccgcyt gcaccacgtg
 240
 gtggaagaaa ccaaccggac cctagatgcc gctaccgcgc tggcatcttc cgatctagat
 300
 acattccggc ggcttatgcy cgagagccac atctccctgc gcgacctta tgaggtcacc
 360
 actccggagc tcgactccgt ttttaccgcy gccggcgagc tgggcgctcy catgannnn
 419

<210> 2064
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 2064
 Ala Gly Ala Val Glu Arg Val Pro Phe Asn Ile Glu Ala Gln Asp Met
 1 5 10 15
 Val Leu Leu Ile Ala Asp Thr Asn Ala Pro His Met Leu Ser Asp Gly
 20 25 30
 Gln Tyr Ala Ser Arg Arg Gly Ile Ile Asp Ala Val Gln Ser Ala Ala
 35 40 45
 Gly Cys Ser Ile Arg Glu Ile Ser Asn Ala Val Asp Phe Ala Ala Thr
 50 55 60
 Val Asn Pro Ala Glu Ala Glu Leu Tyr Arg Arg Arg Val His His Val
 65 70 75 80
 Val Glu Glu Thr Asn Arg Thr Leu Asp Ala Ala Thr Ala Leu Ala Ser
 85 90 95
 Ser Asp Leu Asp Thr Phe Arg Arg Leu Met Arg Glu Ser His Ile Ser
 100 105 110
 Leu Arg Asp Leu Tyr Glu Val Thr Thr Pro Glu Leu Asp Ser Val Phe
 115 120 125
 Thr Ala Ala Gly Glu Leu Gly Ala Arg Met Xaa
 130 135

<210> 2065
 <211> 598
 <212> DNA
 <213> Homo sapiens

<400> 2065
 gccggcgcta tggcctctct gctcgccgac gccgccgatg cccttcccg cgcaaagggtg
 60

cgcgcgaccg ttactggatc ggcgggattg ggaaccgcag aggcattggg ccttactttc
 120
 attcaggagg tcatagctga gacggccgcc gtccaacgtt ggaatccccga cgccgacgtg
 180
 cttctcgaac tcggtggtga ggatgccaaag atcacctacc ttaagccggt ccccgaaacag
 240
 cgcataaatg gttcgtgtgc tgggtggcacc ggtgccttca tcgaccagat ggctaccctg
 300
 ctgcacaccg acactccccg cctcaatgac ctgcacatccc gagccaagac catccatccg
 360
 atcgccctgc gctgtggtgt ttttgccaag tccgaccttc agccccctcat taacgagggg
 420
 gcccgccacg aggatctggc tgcctcggtc ctgcaggctg tcgccactca gtgcattgcc
 480
 ggcttgccat gtggtcgccc gattcgaggt aaggtcatct tccttggcgg tccgcttcac
 540
 tttatgcaa gtttgcgaga cgctttctcg cgcgtcctcg acggtaaggt tgacgcgt
 598

<210> 2066

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2066

Ala	Gly	Ala	Met	Ala	Ser	Leu	Leu	Ala	Asp	Ala	Ala	Asp	Ala	Leu	Pro
1				5					10					15	
Gly	Ala	Lys	Val	Arg	Ala	Thr	Val	Thr	Gly	Ser	Ala	Gly	Leu	Gly	Thr
			20					25					30		
Ala	Glu	Ala	Leu	Gly	Leu	Thr	Phe	Ile	Gln	Glu	Val	Ile	Ala	Glu	Thr
			35				40						45		
Ala	Ala	Val	Gln	Arg	Trp	Asn	Pro	Asp	Ala	Asp	Val	Leu	Leu	Glu	Leu
			50			55					60				
Gly	Gly	Glu	Asp	Ala	Lys	Ile	Thr	Tyr	Leu	Lys	Pro	Val	Pro	Glu	Gln
65					70					75				80	
Arg	Met	Asn	Gly	Ser	Cys	Ala	Gly	Gly	Thr	Gly	Ala	Phe	Ile	Asp	Gln
				85					90					95	
Met	Ala	Thr	Leu	Leu	His	Thr	Asp	Thr	Pro	Gly	Leu	Asn	Asp	Leu	Ala
			100					105					110		
Ser	Arg	Ala	Lys	Thr	Ile	His	Pro	Ile	Ala	Ser	Arg	Cys	Gly	Val	Phe
			115				120					125			
Ala	Lys	Ser	Asp	Leu	Gln	Pro	Leu	Ile	Asn	Glu	Gly	Ala	Arg	His	Glu
			130			135					140				
Asp	Leu	Ala	Ala	Ser	Val	Leu	Gln	Ala	Val	Ala	Thr	Gln	Cys	Ile	Ala
145					150					155				160	
Gly	Leu	Ala	Cys	Gly	Arg	Pro	Ile	Arg	Gly	Lys	Val	Ile	Phe	Leu	Gly
			165						170					175	
Gly	Pro	Leu	His	Phe	Met	Pro	Ser	Leu	Arg	Asp	Ala	Phe	Ser	Arg	Val
			180					185					190		
Leu	Asp	Gly	Lys	Val	Asp	Ala									
			195												

<210> 2067

<211> 366

<212> DNA

<213> Homo sapiens

<400> 2067

ttccagcaga tgctgcaaac ctggacccgc agcggcacgc tgcaggaggc cgtggccaac
60
aagatcgccg aatggctgga tgccgacctg caacagtggg acatttcccg cgatgcaccg
120
tacttcggtt tcgagatccc gggcgagcca ggcaagtatt tctacgtgtg gctggacgcg
180
ccgatcggct acatggccag tttcaagaac ctgtgcgacc gcacgccgga gctggacttc
240
gatgctttct gggccaagga ctccaccgcc gagctgtacc atttcacgg caaggacatc
300
gtcaacttcc acgccctggt ctggcggcg atgctcgaag gctcgggcta ccgtaaaccg
360
accggt
366

<210> 2068

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2068

Phe	Gln	Gln	Met	Leu	Gln	Thr	Trp	Thr	Arg	Ser	Gly	Thr	Leu	Gln	Glu
1				5					10					15	
Ala	Val	Ala	Asn	Lys	Ile	Ala	Glu	Trp	Leu	Asp	Ala	Asp	Leu	Gln	Gln
			20					25					30		
Trp	Asp	Ile	Ser	Arg	Asp	Ala	Pro	Tyr	Phe	Gly	Phe	Glu	Ile	Pro	Gly
		35					40					45			
Glu	Pro	Gly	Lys	Tyr	Phe	Tyr	Val	Trp	Leu	Asp	Ala	Pro	Ile	Gly	Tyr
	50					55				60					
Met	Ala	Ser	Phe	Lys	Asn	Leu	Cys	Asp	Arg	Thr	Pro	Glu	Leu	Asp	Phe
65					70				75					80	
Asp	Ala	Phe	Trp	Ala	Lys	Asp	Ser	Thr	Ala	Glu	Leu	Tyr	His	Phe	Ile
				85				90					95		
Gly	Lys	Asp	Ile	Val	Asn	Phe	His	Ala	Leu	Phe	Trp	Pro	Ala	Met	Leu
			100					105				110			
Glu	Gly	Ser	Gly	Tyr	Arg	Lys	Pro	Thr	Gly						
			115					120							

<210> 2069

<211> 280

<212> DNA

<213> Homo sapiens

<400> 2069

cctagagagg atggtggaga ctgtgcgtgt gcagggtgtt ccggaacctt ccctgggatg
60
catggggcct cgccgcaggc catctctcca gacctgggct caccctgcc cgtgtgctgtt
120
gcctttggct ggaattccac ccagccttc ttgcctcaag aacgcccttc cccttcaga
180

tctcatgggc acaggccccg tcttcctaaa cgggggcaga gccccagta atcatgacaa
 240
 agaccctctc ctcgatcaag ctttggtcaa gtcctaccc
 280

<210> 2070
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 2070
 Met Val Glu Thr Val Arg Val Gln Gly Val Pro Glu Pro Ser Leu Gly
 1 5 10 15
 Cys Met Gly Pro Arg Arg Arg Pro Ser Leu Gln Thr Trp Ala His Pro
 20 25 30
 Ala Pro Val Leu Leu Pro Leu Ala Gly Ile Pro Pro Gln Pro Ser Cys
 35 40 45
 Leu Lys Asn Ala Leu Pro Pro Ser Asp Leu Met Gly Thr Gly Pro Val
 50 55 60
 Phe Leu Asn Gly Val Arg Ala Pro Ser Asn His Asp Lys Asp Pro Leu
 65 70 75 80
 Leu Asp Gln Ala Leu Val Lys Leu Leu Pro
 85 90

<210> 2071
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 2071
 acgcgtgtcc agcagactta gaaagcaggt tcctcttgtc atacagcacg ttaacatagc
 60
 tgacgaggcc tgggtgtctt catcagtact gtgatgactc tttcaccttt gacttcagat
 120
 gctggcgctt tttacttttt gtgccaaact ctacacatga aacacttttg gaataactac
 180
 agacatgact ttctttatct ggggaaaagg agggcattaa accagattag gggctgggag
 240
 gggagggttg caggggatga gctgctcctg aggaagagggc agagatcaag cttcactcag
 300
 cagctggatt ctcacctagt ttatagactg aaatcctgca aggtggttac aacagtgaac
 360
 aatatgttca tacataaaga ctctaccctc aggtgatca
 399

<210> 2072
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2072
 Met Thr Leu Ser Pro Leu Thr Ser Asp Ala Gly Ala Phe Tyr Phe Leu
 1 5 10 15
 Cys Gln Thr Leu His Met Lys His Phe Trp Asn Asn Tyr Arg His Asp

	20		25		30										
Phe	Leu	Tyr	Leu	Gly	Lys	Arg	Arg	Ala	Leu	Asn	Gln	Ile	Arg	Gly	Trp
	35						40					45			
Glu	Gly	Arg	Leu	Ser	Gly	Asp	Glu	Leu	Leu	Leu	Arg	Lys	Arg	Gln	Arg
	50					55					60				
Ser	Ser	Phe	Thr	Gln	Gln	Leu	Asp	Ser	His	Leu	Val	Tyr	Arg	Leu	Lys
65					70					75				80	
Ser	Cys	Lys	Val	Val	Thr	Thr	Val	Asn	Asn	Met	Phe	Ile	His	Lys	Asp
			85					90						95	
Ser	Thr	Leu	Arg												
			100												

<210> 2073

<211> 339

<212> DNA

<213> Homo sapiens

<400> 2073

```

ggatccactt ctgtgccttt ccagcttcta gaggtgcct gcgttccttg gctcgtggcc
60
ccttcctcca ccttcaagcc agcagcggag gcctgagtc ttctcatgcc atctctctgt
120
tctctctcct gcctcctcct ccacactgaa ggaccctgt gatcacactg gccccccac
180
cggatgaccc aggataatcc atctccctgt ttgaaggctg gctgattagc aaccttcatt
240
ccatctgcct ccttcattcc ccctggccat gtaatgggat tcacagcttc tggggattag
300
gacatggaca tcttgtggcg ggggcataat tctgtcgac
339

```

<210> 2074

<211> 85

<212> PRT

<213> Homo sapiens

<400> 2074

Met	Lys	Glu	Ala	Asp	Gly	Met	Lys	Val	Ala	Asn	Gln	Pro	Thr	Phe	Lys
1				5					10					15	
Gln	Gly	Asp	Gly	Leu	Ser	Trp	Val	Ile	Arg	Trp	Gly	Gly	Gln	Cys	Asp
		20						25					30		
His	Arg	Gly	Pro	Ser	Val	Trp	Arg	Arg	Arg	Gln	Glu	Arg	Glu	Gln	Arg
	35					40					45				
Asp	Gly	Met	Arg	Arg	Thr	Gln	Ala	Ser	Ala	Ala	Gly	Leu	Lys	Val	Glu
	50				55						60				
Glu	Gly	Ala	Thr	Ser	Gln	Gly	Thr	Gln	Ala	Ala	Ser	Arg	Ser	Trp	Lys
65				70					75					80	
Gly	Thr	Glu	Val	Asp											
			85												

<210> 2075

<211> 481

<212> DNA

<213> Homo sapiens

<400> 2075

ntggccaggt tgacctcaaa ggtgtacatt gttttatgtg gcgacaatgg actgtcagaa
 60
 accaaggagc tctcctgtcc agagaagtcc ctgtttgaaa ggaattccag acacaccttt
 120
 atcctgagcg ctctcgccca actgggcctg ctgaggaaga tccgcctctg gcacgacagc
 180
 cgtgggcctt ccccaggctg gttcatcagc cacgtgatgg tgaaggagct gcacacggga
 240
 cagggctggg tcttccctgc ccagtgetgg ctgtctgccg gcaggcatga tggtcgctg
 300
 gagcgggagc tcacctgtct gcaaggggga ctcggtctct ggaagctttt ctattgcaag
 360
 ttcacagagt acctggagga tttccatgtc tggctgtcgg tgtacagcag gccctcctcc
 420
 agccgctacc tgcacacgcc gcgccccacc gtgtccttct cctgtctgtg cgtctacgcg
 480
 t
 481

<210> 2076

<211> 160

<212> PRT

<213> Homo sapiens

<400> 2076

Xaa	Ala	Arg	Leu	Thr	Ser	Lys	Val	Tyr	Ile	Val	Leu	Cys	Gly	Asp	Asn
1				5					10					15	
Gly	Leu	Ser	Glu	Thr	Lys	Glu	Leu	Ser	Cys	Pro	Glu	Lys	Ser	Leu	Phe
			20					25					30		
Glu	Arg	Asn	Ser	Arg	His	Thr	Phe	Ile	Leu	Ser	Ala	Pro	Ala	Gln	Leu
		35					40					45			
Gly	Leu	Leu	Arg	Lys	Ile	Arg	Leu	Trp	His	Asp	Ser	Arg	Gly	Pro	Ser
	50					55				60					
Pro	Gly	Trp	Phe	Ile	Ser	His	Val	Met	Val	Lys	Glu	Leu	His	Thr	Gly
65					70					75				80	
Gln	Gly	Trp	Phe	Phe	Pro	Ala	Gln	Cys	Trp	Leu	Ser	Ala	Gly	Arg	His
			85					90					95		
Asp	Gly	Arg	Val	Glu	Arg	Glu	Leu	Thr	Cys	Leu	Gln	Gly	Gly	Leu	Gly
			100					105					110		
Phe	Trp	Lys	Leu	Phe	Tyr	Cys	Lys	Phe	Thr	Glu	Tyr	Leu	Glu	Asp	Phe
		115					120					125			
His	Val	Trp	Leu	Ser	Val	Tyr	Ser	Arg	Pro	Ser	Ser	Ser	Arg	Tyr	Leu
	130					135					140				
His	Thr	Pro	Arg	Pro	Thr	Val	Ser	Phe	Ser	Leu	Leu	Cys	Val	Tyr	Ala
145					150					155					160

<210> 2077

<211> 1410

<212> DNA

<213> Homo sapiens

<400> 2077

ncagagtgtt ttgagctatc tggatatcca aatgatgtga atacttttcag aaaccaatgg
 60
 caaattgaac ccaactgttt gcgaattcgg cagcagtaaa gatctttttt ttttttttgt
 120
 tttttttttt tttttttttt ttttgctttc taaagtggct ttaatatcac acaagcggct
 180
 ctttgggtcta cagtgcagaga aaacagaggg agccaggaaa ggctccccgc tggcctctgg
 240
 agtccaggag ccttaggaag gctgaaaaca gccctgacca gcaggcttag ttgtcctgag
 300
 aagagccagt gaggccacct ggtccagttc accaggtttc ccagggaagc acaggcatct
 360
 ctgggtcccc gagcacagtg ccagggaaga ccccccaat ccccatctga acaggccgag
 420
 ggcagcatgg gaaaggctca gactgcaggt tcaccccgca ggatggtaag gacacgtgct
 480
 cctccctcgc aagagcagggc ttgtgcacag cccggcacag ggccagccag ggcggccccct
 540
 gcggctgtgc agcgcttacc agggggagga gttagccat caggaccttt tccaagtgga
 600
 tctgtggtc cagcacagcc actcgcagct tgagggccgc cagggtctgc agctcctggg
 660
 tgcaggagta gacaagcagc tgggnnggct ccatgcaggc tccgctctac cccacagga
 720
 cggcgaggct ccggggggcc tnnccccaca gacatggtct tgggtggctgt tccgccaccg
 780
 ctgcacgcag ctctgcagc ctgtgcagac actggccac catggcctgc agcccccca
 840
 gcgtgagcag gcagcggtag tcctgcatcc agtccatggg ggctgctgag agctcctccc
 900
 tcatgcgcag tctcagcagc gagcaggcct tccgcaggcg ccccgccctc gcctccacct
 960
 ccacagcact gagcctgggc tggggccccgc ctgaagctgt ctgcatgttc tggaggaact
 1020
 ggggttttggc agcggcggca tccgtggaat cactggctctg tgtggaactg agctgggccc
 1080
 acaggctcga gttctgggaa gctgctttcc tgaatgccgc aggcagccgc agcagggtgcc
 1140
 ccttctcctt gagtgtgaag gcttctgggg cctgaggagc agcggatggg gccatttgct
 1200
 ggtccctgag gcccgcacca ggcctggggg ttcgggctcc catcccaaca cgggtcccat
 1260
 cccccactga cagcagccgg cgctcagggt ggcccttggc aggcaccgtg gtctggcgga
 1320
 ggcccttggg ggggtctctg tctgaagcat ggccaccagc ttggcctggg gaatgcggtg
 1380
 gggcggaggc tgtcgtgcca gaagaggtga
 1410

<210> 2078

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2078

Gly His Leu Val Gln Phe Thr Arg Phe Pro Arg Glu Ala Gln Ala Ser
 1 5 10 15
 Leu Gly Pro Arg Ala Gln Cys Gln Gly Arg His Pro Gln Ser Pro Ser
 20 25 30
 Glu Gln Ala Glu Gly Ser Met Gly Lys Ala Gln Thr Ala Gly Ser Ser
 35 40 45
 Arg Arg Met Val Arg Thr Arg Ala Pro Pro Ser Gln Glu Gln Ala Cys
 50 55 60
 Ala Gln Pro Gly Thr Gly Pro Ala Arg Ala Ala Pro Ala Ala Val Gln
 65 70 75 80
 Arg Leu Pro Gly Gly Gly Val Gln Pro Ser Gly Pro Phe Pro Ser Gly
 85 90 95
 Ser Ala Gly Pro Ala Gln Pro Leu Ala Ala
 100 105

<210> 2079

<211> 565

<212> DNA

<213> Homo sapiens

<400> 2079

atttacctcg caaccgaccc tgatcgtgaa ggtgaaagca tcagctggca catccagcag
 60
 gtactggcgg tcaaactcta caaacgcatt accttcaacg agatcactct caagcgcgtt
 120
 gaagaggcac tggccaatcc tcgacaaatc gatctgaaca gagttgcctc acaggaatgc
 180
 cggcgtgtgc ttgaccgctt ggtgggggtac ctgggtgaccc aagagttgcg gcgcctgatg
 240
 ggcaaacta cttccgctgg ccgcgttcaa tcaccgcgcg tgtttcttgt ggtcttgccg
 300
 gaacgcgaga tccgcaactt tcagggtgatc aatcactttg gcgtgcgtct gttctttgcc
 360
 gatgtaagtc ggggcaccac ttggtatgcc gagtggcaac cggtagcgga tttagcaagc
 420
 aagcacttcc cctatgttca ggatagcaac ctggctcagc acgtcgccgg cactcgaaat
 480
 gtggctcgtg agtcctgcga ggatcgcaag gccgagcgtc atcctcctgc accattcatc
 540
 tcattccactc ttcaacaggc cgcca
 565

<210> 2080

<211> 188

<212> PRT

<213> Homo sapiens

<400> 2080

Ile Tyr Leu Ala Thr Asp Pro Asp Arg Glu Gly Glu Ser Ile Ser Trp
 1 5 10 15
 His Ile Gln Gln Val Leu Ala Val Lys Ser Tyr Lys Arg Ile Thr Phe
 20 25 30
 Asn Glu Ile Thr Leu Lys Arg Val Glu Glu Ala Leu Ala Asn Pro Arg

```

      35          40          45
Gln Ile Asp Leu Asn Arg Val Ala Ser Gln Glu Cys Arg Arg Val Leu
  50          55          60
Asp Arg Leu Val Gly Tyr Leu Val Thr Gln Glu Leu Arg Arg Leu Met
  65          70          75          80
Gly Lys Pro Thr Ser Ala Gly Arg Val Gln Ser Pro Ala Val Phe Leu
      85          90          95
Val Val Leu Arg Glu Arg Glu Ile Arg Asn Phe Gln Val Ile Asn His
      100          105          110
Phe Gly Val Arg Leu Phe Phe Ala Asp Val Ser Arg Gly Thr Thr Trp
      115          120          125
Tyr Ala Glu Trp Gln Pro Val Pro Asp Phe Ala Ser Lys His Phe Pro
      130          135          140
Tyr Val Gln Asp Ser Asn Leu Ala Gln His Val Ala Gly Thr Arg Asn
      145          150          155          160
Val Val Val Glu Ser Cys Glu Asp Arg Lys Ala Glu Arg His Pro Pro
      165          170          175
Ala Pro Phe Ile Ser Ser Thr Leu Gln Gln Ala Ala
      180          185

```

<210> 2081.

<211> 319

<212> DNA

<213> Homo sapiens

<400> 2081

```

aagcttatgg aaaaacgggg atacggagag gagtatataa atcgctataa aatgatgaca
60
aggttccatc atcaacgggt tccactagta attttggtgt gtggaactgc ctgtactgga
120
aaatcaacaa tcgctacaca acttgctcag aggetcaatt tgcctaattgt tttgcagacg
180
gacatggtgt atgagctgct gcggacatca acagatgcgc cacttacttc agttcctgtg
240
tgggctcgcg attttaattc acctgaagag cttatcactg aattctgcag agaatgcaga
300
gttgtagcga agggtttgg
319

```

<210> 2082

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2082

```

Lys Leu Met Glu Lys Arg Gly Tyr Gly Glu Glu Tyr Ile Asn Arg Tyr
  1          5          10          15
Lys Met Met Thr Arg Phe His His Gln Arg Val Pro Leu Val Ile Leu
      20          25          30
Val Cys Gly Thr Ala Cys Thr Gly Lys Ser Thr Ile Ala Thr Gln Leu
      35          40          45
Ala Gln Arg Leu Asn Leu Pro Asn Val Leu Gln Thr Asp Met Val Tyr
      50          55          60
Glu Leu Leu Arg Thr Ser Thr Asp Ala Pro Leu Thr Ser Val Pro Val

```

65		70		75		80									
Trp	Ala	Arg	Asp	Phe	Asn	Ser	Pro	Glu	Glu	Leu	Ile	Thr	Glu	Phe	Cys
			85						90					95	
Arg	Glu	Cys	Arg	Val	Val	Arg	Lys	Gly	Leu						
			100						105						

<210> 2083
 <211> 382
 <212> DNA
 <213> Homo sapiens

<400> 2083
 nngcctgatt gcgacatggc cgtcgagtgc gctgtaacac gcaagcagct atataccatc
 60
 atacctactg ttgaatgcaa ctgtggccac gttttctgct ttggctgtgg tttggatgga
 120
 caccagccgg tcatttgtgc tgttgtccgc ttgtggctga aaaaatgtgc ggatgacagt
 180
 gagacgtcca actggatcgg cgctaatacc aaggaatgcc ccaaagtctg ttcgacgatt
 240
 gaaaagaatg gcggatgtaa tcatatgacg tgtcgcaagt gcaaatacga attttgttgg
 300
 atttgcctcg gcccattggtc ggagcacgga aacaactatt acaactgcaa tcgggtacgat
 360
 gaaaaggcag gagatgaagg tn
 382

<210> 2084
 <211> 127
 <212> PRT
 <213> Homo sapiens

Xaa	Pro	Asp	Cys	Asp	Met	Ala	Val	Glu	Cys	Ala	Val	Thr	Arg	Lys	Gln
1				5					10					15	
Leu	Tyr	Thr	Ile	Ile	Pro	Thr	Val	Glu	Cys	Asn	Cys	Gly	His	Val	Phe
			20					25					30		
Cys	Phe	Gly	Cys	Gly	Leu	Asp	Gly	His	Gln	Pro	Val	Ile	Cys	Ala	Val
		35				40					45				
Val	Arg	Leu	Trp	Leu	Lys	Lys	Cys	Ala	Asp	Asp	Ser	Glu	Thr	Ser	Asn
	50				55					60					
Trp	Ile	Gly	Ala	Asn	Thr	Lys	Glu	Cys	Pro	Lys	Cys	Cys	Ser	Thr	Ile
65				70					75					80	
Glu	Lys	Asn	Gly	Gly	Cys	Asn	His	Met	Thr	Cys	Arg	Lys	Cys	Lys	Tyr
			85						90					95	
Glu	Phe	Cys	Trp	Ile	Cys	Ser	Gly	Pro	Trp	Ser	Glu	His	Gly	Asn	Asn
			100					105					110		
Tyr	Tyr	Asn	Cys	Asn	Arg	Tyr	Asp	Glu	Lys	Ala	Gly	Asp	Glu	Gly	
		115					120					125			

<210> 2085
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 2085

nnggatccca aagaccgca tattgccatg gtgttccaaa actatgccct ctaccgcac
 60
 atgactgtcg ccgacaacat gggttttgcc ctcaaactgg cgaaagtga taagaaagaa
 120
 atccggcgtc gcgtggagga agccgccgaa ctctcgacc tcaccgacta tctggaccgc
 180
 aaaccaagg cactctccgg tggccagcgg cagcgcgtcg ccatggggcg cgctattgtt
 240
 cgttcccccc gcgttttctt gatggacgag cctctttcta acctggatgc gcgtctgcgt
 300
 gtccgcaccc gcgccagat tgcggaactg cagcgccgcc tgggcaccac caccgtttat
 360
 gtcacccatg accaggtgga ggctatgacg atgggggatc gtgtggctgt tctctgtgcc
 420
 gggaaactgc agcaggtgga tactccacgt aatcttttcg accaccccg c taacgcgt
 478

<210> 2086

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2086

Xaa	Asp	Pro	Lys	Asp	Arg	Asp	Ile	Ala	Met	Val	Phe	Gln	Asn	Tyr	Ala
1				5					10					15	
Leu	Tyr	Pro	His	Met	Thr	Val	Ala	Asp	Asn	Met	Gly	Phe	Ala	Leu	Lys
			20					25					30		
Leu	Ala	Lys	Val	Asp	Lys	Lys	Glu	Ile	Arg	Arg	Arg	Val	Glu	Glu	Ala
		35					40					45			
Ala	Glu	Leu	Leu	Asp	Leu	Thr	Asp	Tyr	Leu	Asp	Arg	Lys	Pro	Lys	Ala
	50					55				60					
Leu	Ser	Gly	Gly	Gln	Arg	Gln	Arg	Val	Ala	Met	Gly	Arg	Ala	Ile	Val
65				70				75						80	
Arg	Ser	Pro	Arg	Val	Phe	Leu	Met	Asp	Glu	Pro	Leu	Ser	Asn	Leu	Asp
			85					90					95		
Ala	Arg	Leu	Arg	Val	Arg	Thr	Arg	Ala	Gln	Ile	Ala	Glu	Leu	Gln	Arg
		100						105					110		
Arg	Leu	Gly	Thr	Thr	Thr	Val	Tyr	Val	Thr	His	Asp	Gln	Val	Glu	Ala
	115					120						125			
Met	Thr	Met	Gly	Asp	Arg	Val	Ala	Val	Leu	Cys	Ala	Gly	Lys	Leu	Gln
	130					135					140				
Gln	Val	Asp	Thr	Pro	Arg	Asn	Leu	Phe	Asp	His	Pro	Ala	Asn	Ala	
145					150					155					

<210> 2087

<211> 731

<212> DNA

<213> Homo sapiens

<400> 2087

gataattctc tacacggcat gagctgggga cgtacccccc ttgccaacgt cacctcacgg
 60

tcgtaccgtg gtgattagca gctagccgag gcgctagccg ccatataaga ttcccaaatt
 120
 aaaagaaaaa gcattgcgtc ggccaagaat tgctgtcgct gctgcaacgg ctactgcgct
 180
 ggctcggatca atcgcagcaa tcaccccctc ccccgaggcag aagctaactc caataggcca
 240
 cgctcggtag ctcaagccgc tatcgccacg gatggaaagg ggataatcaa caaggactgc
 300
 cgtgatgcag tcatcaacga tgcaaagctg cgtgccgcga ttgccgggtgc gttgggtaag
 360
 gctggattta gttccgccga cgcggtggct ctagegccgc gtattgccag agaaatggca
 420
 aaagagggcg tcctcctcat caaccaccac aagctaaagg ctctcatcgg agcccagggtg
 480
 ggtctgctca ctgatgcgaa gatccagcgt gctgccgctg cagtggacct cggcatcaaa
 540
 gccactctag ctgcgacaat cattcccaac gcgctgcatt cagcggcatt caaggatgcg
 600
 gtggtcgcaa atcttgtcgc cgccgggtctg acaagaagtt ggcaaaggct acggctgtcg
 660
 ccattgccgc aactgcgtc aatcccgctc tcggggccgat cgcaaagact gaggccatta
 720
 aggctgagat c
 731

<210> 2088

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2088

Met	Ala	Lys	Glu	Gly	Val	Leu	Leu	Ile	Asn	His	His	Lys	Leu	Lys	Ala
1				5				10					15		
Leu	Ile	Gly	Ala	Gln	Val	Gly	Leu	Leu	Thr	Asp	Ala	Lys	Ile	Gln	Arg
		20					25					30			
Ala	Ala	Ala	Ala	Val	Asp	Leu	Gly	Ile	Lys	Ala	Thr	Leu	Ala	Ala	Thr
		35					40					45			
Ile	Ile	Pro	Asn	Ala	Leu	His	Ser	Ala	Ala	Phe	Lys	Asp	Ala	Val	Val
	50					55					60				
Ala	Asn	Leu	Val	Ala	Ala	Gly	Leu	Thr	Arg	Ser	Trp	Gln	Arg	Leu	Arg
65				70					75				80		
Leu	Ser	Pro	Leu	Pro	Gln	Leu	Arg	Ser	Ile	Pro	Leu	Ser	Gly	Arg	Ser
			85						90				95		
Gln	Arg	Leu	Arg	Pro	Leu	Arg	Leu	Arg							
			100					105							

<210> 2089

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2089

accggtgtgg accaggctca gctgcgcgac gccatgtttt cctaccttcc ccaccacaag
 60

ctcggggaat tcgacatcga tctgttgctg gaccatcgcg attcccgta gcccatcatc
 120
 ttcgacaccg accacttcga ggggtacgag cgcccccgcc tcgtgctgca cgaagtcacc
 180
 gatcaacttg gccaaagcgtt ccttgatttg gaaggcccag agccggctct eggctgggaa
 240
 tcgttggtgg cgtctctcac gagtcttgtc gactctatgg ggatccgtct gaccggcatt
 300
 accgattcga tcccg
 315

<210> 2090

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2090

Thr	Gly	Val	Asp	Gln	Ala	Gln	Leu	Arg	Asp	Ala	Met	Phe	Ser	Tyr	Leu
1				5					10					15	
Pro	His	His	Lys	Leu	Gly	Glu	Phe	Asp	Ile	Asp	Leu	Leu	Leu	Asp	His
			20					25					30		
Arg	Asp	Ser	Arg	Gln	Pro	Ile	Ile	Phe	Asp	Thr	Asp	His	Phe	Glu	Gly
		35				40					45				
Tyr	Glu	Arg	Pro	Arg	Leu	Val	Leu	His	Glu	Val	Thr	Asp	Gln	Leu	Gly
	50					55				60					
Gln	Ala	Phe	Leu	Val	Leu	Glu	Gly	Pro	Glu	Pro	Ala	Leu	Gly	Trp	Glu
65					70				75					80	
Ser	Leu	Val	Ala	Ser	Leu	Thr	Ser	Leu	Val	Asp	Ser	Met	Gly	Ile	Arg
			85					90					95		
Leu	Thr	Gly	Ile	Thr	Asp	Ser	Ile	Pro							
			100					105							

<210> 2091

<211> 322

<212> DNA

<213> Homo sapiens

<400> 2091

actcttgccc attgtctctg tctctgcggt tttctctctg tctctctgtg tctctgtctc
 60
 tgtgtccctg tccagttctg tnnctgtgtg tgcgcgcac tctctctgtg tctctgttng
 120
 agtctctgtc tcttttgtct ctgtctctct ctgtgtctct gccattttg gtctctgtct
 180
 tctttctctct gtgtgtctct ccatttctgt ctctcttctct ctgtctctct ccatttctgt
 240
 ctctgtctct tttctctctg tgtgtctctt ttgtctctct gttctctctg gtgtctctgt
 300
 ccatttctgt cccttcacgc gt
 322

<210> 2092

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2092

```

Thr Leu Val His Cys Leu Cys Leu Cys Val Phe Leu Ser Val Ser Leu
 1             5             10             15
Cys Leu Cys Leu Cys Val Pro Val Gln Phe Cys Xaa Cys Val Cys Ala
          20             25             30
His Leu Ser Leu Cys Leu Cys Xaa Ser Leu Cys Leu Phe Cys Leu Cys
          35             40             45
Leu Ser Leu Cys Leu Cys Pro Phe Trp Ser Leu Leu Ser Phe Leu Cys
          50             55             60
Val Ser Leu His Phe Cys Leu Ser Ser Ser Val Ser Leu His Phe Cys
65             70             75             80
Leu Cys Ser Phe Ser Leu Cys Val Ser Leu Leu Ser Leu Cys Phe Ser
          85             90             95
Ala Cys Leu Cys Pro Phe Leu Ser Leu His Ala
          100             105

```

<210> 2093

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2093

```

gccggcggtca tgcaaacgat caaggtggcg caatttcgcc tctgccatag tcgaaaaatg
60
tttgtggtgg cctaccgcgc agagaccag gagatggtgc tcgatgcgca taaccgcgcc
120
tttgcgttct ttggcggcgt accgcagcgg gttatctacg acaaccttaa aaccgcagtg
180
gatcgatct tggtcggcaa ggatcgaatc ttcaaccggc gcttcttggc gttggctaata
240
cattacctgt ttgaacctgt agcctgtacg cctgctgctg gctgggagaa gggccaagtt
300
gagaatcaag ttcgcaacat acgc
324

```

<210> 2094

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2094

```

Ala Gly Val Met Gln Thr Ile Lys Val Ala Gln Phe Arg Leu Cys His
 1             5             10             15
Ser Arg Lys Met Phe Val Val Ala Tyr Pro Arg Glu Thr Gln Glu Met
          20             25             30
Val Leu Asp Ala His Asn Arg Ala Phe Ala Phe Gly Gly Val Pro
          35             40             45
Gln Arg Val Ile Tyr Asp Asn Leu Lys Thr Ala Val Asp Ala Ile Leu
          50             55             60
Val Gly Lys Asp Arg Ile Phe Asn Arg Arg Phe Leu Ala Leu Ala Asn
65             70             75             80
His Tyr Leu Phe Glu Pro Val Ala Cys Thr Pro Ala Ala Gly Trp Glu

```

				85					90				
Lys	Gly	Gln	Val	Glu	Asn	Gln	Val	Arg	Asn	Ile	Arg		
			100					105					

```
<210> 2095
<211> 402
<212> DNA
<213> Homo sapiens
```

```

<400> 2095
cccgtcacag accaggaaga agcagacaat atgatcgctt ctttcgacac ttatgttcgc
60
accctgcccc ccgccgccaa tcttctgctt aaacaattcc atattgtgga tgttgcccg
120
cgcgtggtgg gcgtgggttc agtgggcacc cactccctgg tactgctact gtccggcccc
180
aatgatgaac ctcttgctgt gcaagtgaag gaagccctcc ccagtgtcct caccaccat
240
gggaaaactgc cggatgcttt ttcggaactg tccgctgggg actcctccgg gctcctccc
300
gataatcttg ataagcatat taaagccggc aatggctacc gggtggtggc gtgccagcag
360
attctgcagg cccactcgga tccgctgctg gggtggaacg gt
402

```

```
<210> 2096
<211> 134
<212> PRT
<213> Homo sapiens
```

```

<400> 2096
Pro Val Thr Asp Gln Glu Glu Ala Asp Asn Met Ile Ala Ser Phe Asp
 1             5            10           15
Thr Tyr Val Arg Thr Leu Pro Pro Ala Ala Asn Leu Leu Leu Lys Gln
      20              25             30
Phe His Ile Val Asp Val Ala Arg Arg Val Val Gly Val Gly Ser Val
      35              40             45
Gly Thr His Ser Leu Val Leu Leu Leu Ser Gly Pro Asn Asp Glu Pro
    50              55             60
Leu Val Leu Gln Val Lys Glu Ala Leu Pro Ser Val Leu Thr Thr His
65          70          75          80
Gly Lys Leu Pro Asp Ala Phe Ser Glu Leu Ser Ala Gly Asp Ser Ser
      85          90          95
Gly Leu Leu Pro Asp Asn Leu Asp Lys His Ile Lys Ala Gly Asn Gly
      100         105         110
Tyr Arg Val Val Ala Cys Gln Gln Ile Leu Gln Ala His Ser Asp Pro
     115         120         125
Leu Leu Gly Trp Thr Arg
   130

```

```
<210> 2097
<211> 641
<212> DNA
<213> Homo sapiens
```

<400> 2097

ncgttttctca cccgcctctcc agcctcatca gcagctgtgg gctcaggccc cctcccag
 60
 gcggagcagg cgtggccgca gagcagcggg gaggaggagc tgcagctcca gctggccctg
 120
 gccatgagca aggaggaggc cgaccaggta ctgggcgtgc agctggggct gtctgtccgc
 180
 caccgcctc cagcctcac ttcaggctcc ctcccagcca ggctggggcc tggccctcac
 240
 tgtcgtctgt ccacatgctg tctctgtct cctccccagt cctgcctcat cctcacnccg
 300
 ccgtccctct gctgtctact ctctgcctgt cctcactggt tcagggaccc ccagcctctc
 360
 tttattcggc tctatctgac cctggctctg cctctgactc tgctctggc cctcccgtc
 420
 atgccccca cactctctct ccccagccc ccgtcctgcg gccccgagga cgacgcccag
 480
 ctccagctgg cccttagttt gagccgagaa gagcatgata aggtcagagc agcctccctg
 540
 tccctgcccc tgccaggggc tccctcaga ccagccccgt cgcccttcc taagtcaccc
 600
 cccaccatcc tgctggggcc gaagcccaca ggctcacgcy t
 641

<210> 2098

<211> 213

<212> PRT

<213> Homo sapiens

<400> 2098

Xaa	Phe	Leu	Thr	Arg	Pro	Pro	Ala	Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly
1				5				10					15		
Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala	Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu
			20					25					30		
Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu	Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp
		35					40					45			
Gln	Val	Leu	Gly	Val	Gln	Leu	Gly	Leu	Ser	Val	Arg	His	Pro	Pro	Pro
	50					55				60					
Arg	Leu	Thr	Ser	Gly	Ser	Leu	Pro	Ala	Arg	Arg	Gly	Pro	Gly	Pro	His
65					70					75				80	
Cys	Arg	Cys	Ser	Thr	Cys	Cys	His	Ser	Ser	Pro	Pro	Gln	Ser	Cys	Leu
			85						90					95	
Ile	Leu	Thr	Pro	Pro	Ser	Leu	Cys	Val	Ser	Leu	Ser	Ala	Cys	Pro	His
			100					105					110		
Trp	Phe	Arg	Asp	Pro	Gln	Pro	Leu	Phe	Ile	Arg	Leu	Tyr	Leu	Thr	Leu
	115					120					125				
Ala	Leu	Pro	Leu	Thr	Leu	Pro	Leu	Ala	Pro	Pro	Val	Met	Pro	Leu	Thr
	130					135					140				
Leu	Ser	Leu	Pro	Gln	Pro	Pro	Ser	Cys	Gly	Pro	Glu	Asp	Asp	Ala	Gln
145					150					155				160	
Leu	Gln	Leu	Ala	Leu	Ser	Leu	Ser	Arg	Glu	Glu	His	Asp	Lys	Val	Arg
			165					170					175		
Ala	Ala	Ser	Leu	Ser	Leu	Pro	Leu	Pro	Gly	Ala	Pro	Leu	Arg	Pro	Ala

180 185 190
 Pro Ser Pro Leu Pro Lys Ser Pro Pro Thr Ile Leu Leu Gly Pro Lys
 195 200 205
 Pro Thr Gly Ser Arg
 210

<210> 2099

<211> 347

<212> DNA

<213> Homo sapiens

<400> 2099

acgcgtgtgc cctgtcccct gccagacatg gacagcacct gcccacaggg gtgctcagtg
 60
 gaggcagtgc ccagggtgtc tgtgcccatt cgtgtaccct gtcctctgcc agacgcggac
 120
 agcacctgcc cacgggggtgc tcagtggagg cagtgtccag ggctgctgtg cccacgtgtg
 180
 tgccctcaga catccctccc cagacacttg ctgcatgacc caggaggtgg caggcagtgg
 240
 cagtattctg ttcaggtgag ctcagaggtg gcaggtgcct ggctgcggcc ctgcctcact
 300
 ccgacagcct ctgcctccag tccactggct catccacat ggctga
 347

<210> 2100

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2100

Met Asp Ser Thr Cys Pro Gln Gly Cys Ser Val Glu Ala Val Pro Arg
 1 5 10 15
 Ala Ala Val Pro Met Arg Val Pro Cys Pro Leu Pro Asp Ala Asp Ser
 20 25 30
 Thr Cys Pro Arg Gly Ala Gln Trp Arg Gln Cys Pro Gly Leu Leu Cys
 35 40 45
 Pro Arg Val Cys Pro Gln Thr Ser Leu Pro Arg His Leu Leu His Asp
 50 55 60
 Pro Gly Gly Gly Arg Gln Trp Gln Tyr Ser Val Gln Val Ser Ser Glu
 65 70 75 80
 Val Ala Gly Ala Trp Leu Arg Pro Cys Leu Thr Pro Thr Ala Ser Ala
 85 90 95
 Ser Ser Pro Leu Ala His Pro Thr Trp Pro
 100 105

<210> 2101

<211> 549

<212> DNA

<213> Homo sapiens

<400> 2101

ctctctccga ccgcgttgac ggtccagccg gtccgcacgc cgtcatcgga atcggcatca
 60

acgttttcgat ggggcgtgac gaattgcccc tgccgacggc gacctctctg gctctgtgtg
 120
 gggtgaacca cgacaagaat gagttgctgg ccagccttct catccacctt gacgagctat
 180
 taacagtgtg gttggagacc ggaacggtgc gggatcagta tgtggcccgc tgtgacacca
 240
 ttggtactcc ggtccgtctg accttcgacc cagaaatcgt ggggtggtggt gagggggcca
 300
 ttgagggcat cgggtgctgac gttgacgttg atggcgctat cgtggtggaa acttctgacg
 360
 ggcgtcgcag tttcaacgct gctgacgttc atcatttgcg aaccaggtga gttccgctac
 420
 ggcgtcctga gcgttccac catctagact gctgactatg acgaccaca ttttggccct
 480
 tggtggtggc ggtttctcga tgtcgaaccg cggtgagcct accgctctcg accgtcacat
 540
 ccctgacct
 549

<210> 2102

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2102

Met	Gly	Arg	Asp	Glu	Leu	Pro	Leu	Pro	Thr	Ala	Thr	Ser	Leu	Ala	Leu
1				5					10					15	
Cys	Gly	Leu	Asn	His	Asp	Lys	Asn	Glu	Leu	Leu	Ala	Ser	Leu	Leu	Ile
			20					25					30		
His	Leu	Asp	Glu	Leu	Leu	Thr	Val	Trp	Leu	Glu	Thr	Gly	Thr	Val	Arg
		35					40					45			
Asp	Gln	Tyr	Val	Ala	Arg	Cys	Asp	Thr	Ile	Gly	Thr	Pro	Val	Arg	Leu
	50					55					60				
Thr	Phe	Asp	Pro	Glu	Ile	Val	Gly	Gly	Gly	Glu	Gly	Ala	Ile	Glu	Gly
65					70					75				80	
Ile	Gly	Val	Asp	Val	Asp	Val	Asp	Gly	Ala	Ile	Val	Val	Glu	Thr	Ser
			85					90					95		
Asp	Gly	Arg	Arg	Ser	Phe	Asn	Ala	Ala	Asp	Val	His	His	Leu	Arg	Thr
			100					105					110		

Arg

<210> 2103

<211> 459

<212> DNA

<213> Homo sapiens

<400> 2103

nnacgcgtga cttatacacc gggacgcaat gcgacggcaa cggcagagca cactatcgcc
 60
 atgattatgg cggcagtgcg acagatcccc gccaccatg agttactcgc ttcagggggt
 120
 tgggaggggg acgcatatcg gtacgaccag gttggtatgg aaatcaaagg gaatgacgtc
 180

ggtatcgtcg gatgcggagc ggtcgggtgc cgggttgccg ctgtgatggc ggccatgggt
 240
 gcgaccgtgc gtgtcttcga cccgtgggcc actcctgatt cttttccagc tggcgtgatg
 300
 gcatgtgatg atctcgatga ggttctgagg ctcagccgca tcctcactct ccacgctcgt
 360
 gccaacgagg acaaccgtca catgattggc gttgaacaat tagctgagat gcctgatggc
 420
 tccgtcctcg tcaactgtgc ccgtggctcg ctggtcgac
 459

<210> 2104

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2104

Xaa	Arg	Val	Thr	Tyr	Thr	Pro	Gly	Arg	Asn	Ala	Thr	Ala	Thr	Ala	Glu
1				5					10					15	
His	Thr	Ile	Ala	Met	Ile	Met	Ala	Ala	Val	Arg	Gln	Ile	Pro	Ala	His
			20					25					30		
His	Glu	Leu	Leu	Ala	Ser	Gly	Val	Trp	Glu	Gly	Asp	Ala	Tyr	Arg	Tyr
		35					40				45				
Asp	Gln	Val	Gly	Met	Glu	Ile	Lys	Gly	Asn	Asp	Val	Gly	Ile	Val	Gly
	50					55					60				
Cys	Gly	Ala	Val	Gly	Cys	Arg	Val	Ala	Ala	Val	Met	Ala	Ala	Met	Gly
65					70				75					80	
Ala	Thr	Val	Arg	Val	Phe	Asp	Pro	Trp	Ala	Thr	Pro	Asp	Ser	Phe	Pro
				85					90					95	
Ala	Gly	Val	Met	Ala	Cys	Asp	Asp	Leu	Asp	Glu	Val	Leu	Arg	Leu	Ser
			100					105				110			
Arg	Ile	Leu	Thr	Leu	His	Ala	Arg	Ala	Asn	Glu	Asp	Asn	Arg	His	Met
		115					120					125			
Ile	Gly	Val	Glu	Gln	Leu	Ala	Glu	Met	Pro	Asp	Gly	Ser	Val	Leu	Val
	130					135						140			
Asn	Cys	Ala	Arg	Gly	Ser	Leu	Val	Asp							
145						150									

<210> 2105

<211> 4057

<212> DNA

<213> Homo sapiens

<400> 2105

nnggaaaagc tccgtctagg gggcccccag catgcctgga agtcttgtgc atctgcctag
 60
 agctgaagct ttgggtctgt cctggctttg ccaggcagcc agttttatct cttttgttca
 120
 cccctatatg gctccagtcg gttttggggg gggcagctaa gtgggggagg gggaacacaa
 180
 aagtttgggc aaaacattaa cctgacaaag cttgattccg gaaaaaatc cctcaagagc
 240
 gcaaggccag cttagccaac tggcagctga gtggaaaggc tcagtcctct cgggcagctc
 300

cggtggcacc tagaggggag aggggtgcagg ctttgaagcc agaaagacat ggatgcaagt
360
cttacttttg cttcttgctgt taccagttgg cctgacctta ggaaatgtta tttaatctct
420
ctccagttgt tccccctgga gaaagccctg tcagcctgag gatccaagac gcgtacgtaa
480
agtgtctgat ttcagccagt gtcccttctt gtcccttctt ggggtgtgtg tcggttgccc
540
tgagcgaccg gccatgggac tctgtcgtga taaccaagct tcaggggtgtg ggaagaggac
600
agtcagtgtt tccttggggc atcactcggg aacatcatgg gcataaaca aagtactcag
660
tcttcaaggt cataaagtaa ccagagtgtt ttccttttgt tttcagatct cttacctcag
720
ctagaagctc cgagttctct tactcccagc agtgaactca gcagcccagg ccaaagtgtg
780
ctcactaaca tggatcttgc tgcactcttc tctgacacac ctgccaatgc tagtggttct
840
gcaggtgggt cggatgaggc tctgaactcc ggaatcctga ctattgacgt cacttctgtg
900
agtcctcttc tgggagggaa cctccctgct aataatagct ccctagggcc gatggaaccc
960
ctggctcttg tggcccacag tgatattccc ccaagcctgg acagccctct ggttctcggg
1020
acagcagcca cggttctgca gcagggcagc ttcagtgtgg atgacgtgca gactgtgagt
1080
gcaggagcat taggctgtct ggtggctctg cccatgaaga acttgagtga cgaccactg
1140
gctttgacct ccaatagtaa cttagcagca catatcacca caccgacctc ttcgagcacc
1200
ccccgagaaa atgccagtgt cccggaactg ctggctccaa tcaagggtga gccggactcg
1260
ccttctcggc caggagcagt tgggcagcag gaaggaagcc atgggctgcc ccagtccacg
1320
ttgcccagtc cagcagagca gcacggtgcc caggacacag agtcagtgcc aggcactggc
1380
aacttctatt tggatgaag cactctatc agtcaccacc atataggtca cttctctcat
1440
actcggctct gaggatattc tggattaatc ctttctatgc agacgtttct ggtttataaa
1500
aggacgcagc cctggactac aagtctggaa ctgacaagtt cttatgacct tgacaaatca
1560
ccttaaccca tctgagcctt aaattctcat ttatttctct cataaggaga tttggctaaa
1620
tgctttctga ggtccttttg agtcctgtgg ctccatggta atgtgctcct ttccttgaag
1680
attggggggt ttgtaatgtt gagatacttt gcctctatgc ttgtcagctc atgaccagtc
1740
ctagaagagg agtcgagaca taagccacct tcagagggtt aatggaaact ttaaaacat
1800
accaaactct tttttaaaat tagaattaac aagaaaaaaa aaagggtggg gtttatgagc
1860
cttagttctt ggaggattat aagagtactt cccagttttt gaggctggac agttaatata
1920

ctttatatca attatacatt taatataatt taatttataaa taattttaaag attcttagga
1980
gatagtctga ctttcctgac ctagatggga atgacagat agggattttt tttgtggcac
2040
aggctaaatt tgatggtgac atttatattg ttgagaatgt tacatcttat tttaccacaa
2100
cttttaaaaa atgttacatc ttttgcagta ggatcagttg tgaggcacat agtagctgag
2160
gtcccatgga gccacctttc atttctttca gtcagagagg aggacagtct ctgtctctgc
2220
atttctggtg tcttgcttgt cgggtggcaga gccatgcttg ccggcatttg cttaggtggc
2280
catagtagtt gctaagtgtg caggtgactg ggcagggatg ggaggtggcc acaggtcaga
2340
gacaagtgtc cagtcagtc cttggtgccag gactgtgtgc ctcggtgcct tgggaaatgg
2400
aagctccctg gtgcagctgc agctgtgggt ggaggtagag aagccagcaa gaccttggtc
2460
ttaaccccg tttcattttc ttgctagctg tgtgacgttg ggctacctcg cttctctgag
2520
tacaaatggt gtgtggtgaa tgggtcccag gtatgctacg agctttgagg gctgctcttt
2580
ttctcttcat agcgataagt gttaaactgt ctttcttagg aaacgttcac agacttgcaa
2640
cagctgatgt cctctgagta ctgtctgact cctcaggca agttcctgaa ttcagtaacca
2700
tcattattat ttttgtgtaa gactttgaca aagtatagcc cctgccacca gagcagcctg
2760
tacagtgggt ctctaagggt ggacctgcc cgggcctgcc atgcacgtgt gtgaaacagc
2820
gtgaaaagtg tcgcggtaag gtgacctgg gttaccagc caaggctcgg tgtttgtttc
2880
agaaagcaga gaagtatgta attgatttta aaagtttctg tttaaaatat ttggctatgt
2940
tttagactat gaaggaatga actttgcttc tctggataag aaagtcacat acattgttcc
3000
agctccaagt ttgttcggcc ctgccacaa gtggatgtag cgtttggccc tttgtgtgcc
3060
ttgctggtga ctctgggtttt gggagctcgg atatgtccca gaagcaggct tatggcactt
3120
ctgtagctcc cttgctaccc ttcctttgtg tctagataag tgactgacat gcttttcttt
3180
ggtctcagga aagtgggggc tcagcaagaa ctgattaccg agccattcaa ctagccaagg
3240
aaaaaaagca gagaggagcg gggagcaatg caggtgaggc cgtgtgtgct gcagccggac
3300
gagcaagggc ctgaggggtc tctgtcactg ttactggcag aagaaacaca gcaggtgttt
3360
ctgtgctctt ggtttttacgt ttctgttcag aatacccttt tatcaactcc ttagttttat
3420
ttgaacttaa gggaaaaaat tagtaacaaa attcccagca tcagtatgaa catattttat
3480
ttgcctaaac aagctttgtg aaagttaagc gttcaaacac cagtgtcagt tacctggaag
3540

gctactaagg taaataagca aagcaggcca gttgtcagga aagcagagat tgtgcctggt
 3600
 gctgaatggc cttggggcct gatcttggca tggcagagac ctggggactg ccactgtccc
 3660
 caggtacgtg tacatggagc caaactgtgt gtcctgtggc attgtcagag ttatgttgaa
 3720
 atcttatttg aaaatgttag caacttactt gcatttttaa agaccaaaca agagctggta
 3780
 acctatggcc tcaagcatct gtccttccta aaaatggaat agtgggatgt agtgcttaat
 3840
 ggaaactgct aaatcttttt ctaaaaacta acagtggatt tttaaaatat attgtttttt
 3900
 gtgtatttca tttgtccttt gtatttatct aaaaggggtg atatgatttt atatcttgc
 3960
 ctctattcct aatagtatta tgacttccta tttaaaataa ataacaattg ccggttttct
 4020
 gttaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
 4057

<210> 2106

<211> 240

<212> PRT

<213> Homo sapiens

<400> 2106

Ser	Asn	Gln	Ser	Val	Phe	Leu	Leu	Phe	Ser	Asp	Leu	Leu	Pro	Gln	Leu
1				5					10					15	
Glu	Ala	Pro	Ser	Ser	Leu	Thr	Pro	Ser	Ser	Glu	Leu	Ser	Ser	Pro	Gly
			20					25					30		
Gln	Ser	Glu	Leu	Thr	Asn	Met	Asp	Leu	Ala	Ala	Leu	Phe	Ser	Asp	Thr
			35				40					45			
Pro	Ala	Asn	Ala	Ser	Gly	Ser	Ala	Gly	Gly	Ser	Asp	Glu	Ala	Leu	Asn
		50				55					60				
Ser	Gly	Ile	Leu	Thr	Ile	Asp	Val	Thr	Ser	Val	Ser	Ser	Ser	Leu	Gly
65					70				75					80	
Gly	Asn	Leu	Pro	Ala	Asn	Asn	Ser	Ser	Leu	Gly	Pro	Met	Glu	Pro	Leu
				85					90					95	
Val	Leu	Val	Ala	His	Ser	Asp	Ile	Pro	Pro	Ser	Leu	Asp	Ser	Pro	Leu
			100					105					110		
Val	Leu	Gly	Thr	Ala	Ala	Thr	Val	Leu	Gln	Gln	Gly	Ser	Phe	Ser	Val
		115					120					125			
Asp	Asp	Val	Gln	Thr	Val	Ser	Ala	Gly	Ala	Leu	Gly	Cys	Leu	Val	Ala
		130				135					140				
Leu	Pro	Met	Lys	Asn	Leu	Ser	Asp	Asp	Pro	Leu	Ala	Leu	Thr	Ser	Asn
145				150					155					160	
Ser	Asn	Leu	Ala	Ala	His	Ile	Thr	Thr	Pro	Thr	Ser	Ser	Ser	Thr	Pro
			165					170						175	
Arg	Glu	Asn	Ala	Ser	Val	Pro	Glu	Leu	Ala	Pro	Ile	Lys	Val	Glu	
			180				185					190			
Pro	Asp	Ser	Pro	Ser	Arg	Pro	Gly	Ala	Val	Gly	Gln	Gln	Glu	Gly	Ser
		195				200					205				
His	Gly	Leu	Pro	Gln	Ser	Thr	Leu	Pro	Ser	Pro	Ala	Glu	Gln	His	Gly
		210				215					220				
Ala	Gln	Asp	Thr	Glu	Leu	Ser	Ala	Gly	Thr	Gly	Asn	Phe	Tyr	Leu	Val

225

230

235

240

<210> 2107

<211> 305

<212> DNA

<213> Homo sapiens

<400> 2107

ggtagcatcc ctcagcccca cccagacatg gctcaggtgc ctatgttgaa tctgctccca
60

agtcctgget tggctctcgt tccagatcctt aatgattcctt tgagtcagat ctcaggggag
120

gcctcaggcc tgggtgtctga aaacaccccc agacctgatg acagcagagc tatcgtccca
180

gcctccctcc aaatcaccag ttcttgttct ggtgaacccc tggacctgga ttccaaggat
240

gtctcaaggc ctgactcaca ggggcgcctc tgtccagcct caaaccccat tctggcccn
300

ccnccn

305

<210> 2108

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2108

Met Ala Gln Val Pro Met Leu Asn Leu Leu Pro Ser Pro Gly Leu Ala
1 5 10 15

Leu Val Pro Asp Leu Asn Asp Ser Leu Ser Pro Val Ser Gly Glu Ala
20 25 30

Ser Gly Leu Val Ser Glu Asn Thr Pro Arg Pro Asp Asp Ser Arg Ala
35 40 45

Ile Ala Pro Ala Ser Leu Gln Ile Thr Ser Ser Cys Ser Gly Glu Pro
50 55 60

Leu Asp Leu Asp Ser Lys Asp Val Ser Arg Pro Asp Ser Gln Gly Arg
65 70 75 80

Leu Cys Pro Ala Ser Asn Pro Ile Leu Ala Xaa Pro
85 90

<210> 2109

<211> 700

<212> DNA

<213> Homo sapiens

<400> 2109

nacgcgtcac ccacgcagac catggcagcc gccgacggtt cgctcttcga caaccccagg
60

acgttctcca gacgtccccc agcccaggcg agtcggcaag caaaggctac gaaaagaaaa
120

taccaagcgt ccagtgaggc tccccagcg aaacggagga acgaaacttc atttctccca
180

gccaagaaaa ctagtgttaa agaaactcag aggactttta aggggaacgc acaaaaaatg
240

tttttctcaa agaagcattc ggtagcaca agttagataga accaggagga gagacagtgc
 300
 attaagactt catcactgtt taaaaacaac cctgacattc cagaactcca cagacctgtg
 360
 gtaaagcagg tgcaagaaaa agtggtttact tcagctgctt ttcattgagct gggcctccac
 420
 ccacatttaa tttccacaat aaatacgggc ttaaaaatgt ctagtatgac cagtgttcag
 480
 aagcaaagta ttctgtgtt gctggaaggc agagatgctc tcgtgagatc ccagacgggc
 540
 tcaggtaaaa ttcttgctta ttgcatccct gtgggtccagt cccttcaagc aatggagtca
 600
 aaaatacagc gcagtgatgg cccctatgcc ctgggtgctcg tgccaacgag agaggtaagc
 660
 aggtccctt ttgggacaag ttttaagcac atgctttcat
 700

<210> 2110

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2110

Xaa	Ala	Ser	Pro	Thr	Gln	Thr	Met	Ala	Ala	Ala	Ala	Asp	Gly	Ser	Leu	Phe
1				5					10						15	
Asp	Asn	Pro	Arg	Thr	Phe	Ser	Arg	Arg	Pro	Pro	Ala	Gln	Ala	Ser	Arg	
			20					25					30			
Gln	Ala	Lys	Ala	Thr	Lys	Arg	Lys	Tyr	Gln	Ala	Ser	Ser	Glu	Ala	Pro	
		35					40					45				
Pro	Ala	Lys	Arg	Arg	Asn	Glu	Thr	Ser	Phe	Leu	Pro	Ala	Lys	Lys	Thr	
	50					55					60					
Ser	Val	Lys	Glu	Thr	Gln	Arg	Thr	Phe	Lys	Gly	Asn	Ala	Gln	Lys	Met	
65					70					75					80	
Phe	Ser	Pro	Lys	Lys	His	Ser	Val	Ser	Thr	Ser	Asp	Arg	Asn	Gln	Glu	
				85					90				95			
Glu	Arg	Gln	Cys	Ile	Lys	Thr	Ser	Ser	Leu	Phe	Lys	Asn	Asn	Pro	Asp	
			100					105					110			
Ile	Pro	Glu	Leu	His	Arg	Pro	Val	Val	Lys	Gln	Val	Gln	Glu	Lys	Val	
		115					120					125				
Phe	Thr	Ser	Ala	Ala	Phe	His	Glu	Leu	Gly	Leu	His	Pro	His	Leu	Ile	
	130					135					140					
Ser	Thr	Ile	Asn	Thr	Val	Leu	Lys	Met	Ser	Ser	Met	Thr	Ser	Val	Gln	
145				150						155					160	
Lys	Gln	Ser	Ile	Pro	Val	Leu	Leu	Glu	Gly	Arg	Asp	Ala	Leu	Val	Arg	
			165					170					175			
Ser	Gln	Thr	Gly	Ser	Gly	Lys	Ile	Leu	Ala	Tyr	Cys	Ile	Pro	Val	Val	
		180					185					190				
Gln	Ser	Leu	Gln	Ala	Met	Glu	Ser	Lys	Ile	Gln	Arg	Ser	Asp	Gly	Pro	
	195					200						205				
Tyr	Ala	Leu	Val	Leu	Val	Pro	Thr	Arg	Glu	Val	Ser	Arg	Leu	Pro	Phe	
	210					215					220					
Gly	Thr	Ser	Phe	Lys	His	Met	Leu	Ser								
225					230											

<210> 2111
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 2111
 acgcgttggtg ccggcccgga cccgatcatt gctgcccagc gtttcgggtgc ggtttccgat
 60
 caaatggaaa tcacccgcaa ggctctgaaa aagcacggtc gcggcaacaa gctggcaatt
 120
 gccgagctgg tggeccctggc tgagctgttc atgccaatca agctgggtgcc gaagcaattt
 180
 gaaggcctgg ttgagcgtgt gcgcagtgt cttgagcgtc tgcgtgcca agagcgcgca
 240
 atcatgcagc tctgcgtacg tgatgcacgc atgccgcgtg ccgacttcct gcgccagttt
 300
 ccgggcaacg aagtggatga aagctggacc gacgcactg
 339

<210> 2112
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 2112
 Thr Arg Cys Ala Gly Pro Asp Pro Ile Ile Ala Ala Gln Arg Phe Gly
 1 5 10 15
 Ala Val Ser Asp Gln Met Glu Ile Thr Arg Lys Ala Leu Lys Lys His
 20 25 30
 Gly Arg Gly Asn Lys Leu Ala Ile Ala Glu Leu Val Ala Leu Ala Glu
 35 40 45
 Leu Phe Met Pro Ile Lys Leu Val Pro Lys Gln Phe Glu Gly Leu Val
 50 55 60
 Glu Arg Val Arg Ser Ala Leu Glu Arg Leu Arg Ala Gln Glu Arg Ala
 65 70 75 80
 Ile Met Gln Leu Cys Val Arg Asp Ala Arg Met Pro Arg Ala Asp Phe
 85 90 95
 Leu Arg Gln Phe Pro Gly Asn Glu Val Asp Glu Ser Trp Thr Asp Ala
 100 105 110
 Leu

<210> 2113
 <211> 2329
 <212> DNA
 <213> Homo sapiens

<400> 2113
 nnatacaaaa agcttttcat gtttgaacgt gttcaccatg gcgaggagct ccacatgccc
 60
 atcacagtaa tctggggcgt gtccccagaa gacaatggca acccactaaa tcccaagagt
 120
 aaaggggaagt tgacattaga tagcagtttt aacatcgcca gccagcttc ccaggcctgg
 180

attttgcaact tctgtcaaaa actgagaaac caaacattct tttaccagac tgatgaacag
240
gacttcacca gctgcttcat tgagacattc aaacagtggg tggaaaacca ggactgtgat
300
gagcctgccc tgtacccatg ctgcagccac tggagcttcc cctacaagca agagattttt
360
gaactgtgca tcaagagagc tatcatggag ctggaaagga gtacagggtg ccatttggat
420
agcaaaaccc cagggccgag gtttgatata aatgatacta tcagggcagt ggtgttagag
480
ttccagagta cctacctctt cacactggct tatgaaaaga tgcatacagt ttataaagag
540
gtggactcgt ggatatccag tgagctgagt tcggccctcg aaggccctcag caatgggtgg
600
tttgtcagca atctggagtt ctatgacctc caggatagcc tctccgatgg caccctcatt
660
gccatggggc tgtcagttgc tgttgcatct agcgtgatgc tgcagacaac ttggaacatc
720
atcataagcc tttatgccat catttcaatt gctggaacga tatttgtcac tgttggttct
780
cttgtcctgc tgggctggga gctcaatgtg ttggaatctg tcaccatttc ggttgccgtc
840
ggcttgtctg tagactttgc cgtccattat ggggttgctt accgcttggc tccagatccc
900
gaccgagaag gcaaagtgat cttctctctg agtcgctggg gctctgcgat ggccatggct
960
gccctgacca ccttcgtggc aggggccatg atgattccct ccacagttct agcttacacc
1020
cagctgggca ccttcatgat gctcatcatg tgtatcagtt gggctttcgc caccctcttt
1080
ttccagtgc tgtgccggtg ccttggacca cagggtagct gtggtcagat tcttttacct
1140
aaaaaactac agtgcagtgc cttttcccat gccttgtcta caagtcccag tgacaagga
1200
caaagcaaaa cacataccat aaatgcttat catttagatc ccaggggccc aaaatctgaa
1260
ctggagcatg agttttatga attagaacct ctggcttccc acagctgcac tgcccctgag
1320
aagaccatt atgaagagac ccacatctgc tctgaatttt tcaacagcca agcaaagaat
1380
ttagggatgc ctgtgcatgc agcttacaac agtgaactca gcaaaagcac tgaaagtgc
1440
actggctctg ccttgttaca gccccctctt gaacagcata ccgtgtgtca cttcttctct
1500
ctgaatcaga gatgtagctg ccccgatgcc taaaaacact tgaactatgg cccacactct
1560
tgccagcaga tgggggactg cttgtgccac cagtgtcttc ctaccactag cagctttgtc
1620
cagatccaaa acggcgtggc acctctgaag gccacacacc aagctgtcga gggctttgtg
1680
caccccatca cgcacatcca cactgtccc tgcctgcagg gcagagtaaa gccagccgga
1740
atgcagaatt ctctgcctag gaatttttct cccacccag tgcagcacat tcaggcccaa
1800

gaaaaaattg gcaagaccaa tgtacacagt cttcagagga gcatagaaga gcatcttcca
 1860
 aagatggcag agccatcgtc atttgtctgc agaagcactg gatcggttact caaaacgtgt
 1920
 tgcgaccccg agaataaaca aagggaactc tgtaaaaata gagacgtgag caatctggag
 1980
 agcagtggag ggactgaaaa caaggcagga gggaaagtgg agctgagctt gtcacagacg
 2040
 gatgcaagtg tgaactcaga acatttcaat cagaatgaac caaaagtcct atttaaticat
 2100
 ttaatggggg aggctgggtg taggtcttgc ccaaataatt cacaaagttg tggcagaatt
 2160
 gtgagagtga agtgcaattc tgtggactgt caaatgcaa acatggaagc caatgtgcct
 2220
 gctgtattaa cacactcgga actttctggt gaaagtttgt taataaaaaac actataataa
 2280
 atgcagcatt caattcagaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2329

<210> 2114

<211> 758

<212> PRT

<213> Homo sapiens

<400> 2114

Xaa	Tyr	Lys	Lys	Leu	Phe	Met	Phe	Glu	Arg	Val	His	His	Gly	Glu	Glu
1				5				10					15		
Leu	His	Met	Pro	Ile	Thr	Val	Ile	Trp	Gly	Val	Ser	Pro	Glu	Asp	Asn
			20					25					30		
Gly	Asn	Pro	Leu	Asn	Pro	Lys	Ser	Lys	Gly	Lys	Leu	Thr	Leu	Asp	Ser
		35				40					45				
Ser	Phe	Asn	Ile	Ala	Ser	Pro	Ala	Ser	Gln	Ala	Trp	Ile	Leu	His	Phe
	50				55					60					
Cys	Gln	Lys	Leu	Arg	Asn	Gln	Thr	Phe	Phe	Tyr	Gln	Thr	Asp	Glu	Gln
65				70				75						80	
Asp	Phe	Thr	Ser	Cys	Phe	Ile	Glu	Thr	Phe	Lys	Gln	Trp	Met	Glu	Asn
			85					90					95		
Gln	Asp	Cys	Asp	Glu	Pro	Ala	Leu	Tyr	Pro	Cys	Cys	Ser	His	Trp	Ser
		100					105					110			
Phe	Pro	Tyr	Lys	Gln	Glu	Ile	Phe	Glu	Leu	Cys	Ile	Lys	Arg	Ala	Ile
	115					120					125				
Met	Glu	Leu	Glu	Arg	Ser	Thr	Gly	Tyr	His	Leu	Asp	Ser	Lys	Thr	Pro
	130				135					140					
Gly	Pro	Arg	Phe	Asp	Ile	Asn	Asp	Thr	Ile	Arg	Ala	Val	Val	Leu	Glu
145				150				155						160	
Phe	Gln	Ser	Thr	Tyr	Leu	Phe	Thr	Leu	Ala	Tyr	Glu	Lys	Met	His	Gln
			165					170						175	
Phe	Tyr	Lys	Glu	Val	Asp	Ser	Trp	Ile	Ser	Ser	Glu	Leu	Ser	Ser	Ala
	180						185					190			
Pro	Glu	Gly	Leu	Ser	Asn	Gly	Trp	Phe	Val	Ser	Asn	Leu	Glu	Phe	Tyr
	195					200					205				
Asp	Leu	Gln	Asp	Ser	Leu	Ser	Asp	Gly	Thr	Leu	Ile	Ala	Met	Gly	Leu
	210					215					220				
Ser	Val	Ala	Val	Ala	Phe	Ser	Val	Met	Leu	Leu	Thr	Thr	Trp	Asn	Ile

225					230					235				240	
Ile	Ile	Ser	Leu	Tyr	Ala	Ile	Ile	Ser	Ile	Ala	Gly	Thr	Ile	Phe	Val
				245					250					255	
Thr	Val	Gly	Ser	Leu	Val	Leu	Leu	Gly	Trp	Glu	Leu	Asn	Val	Leu	Glu
			260					265					270		
Ser	Val	Thr	Ile	Ser	Val	Ala	Val	Gly	Leu	Ser	Val	Asp	Phe	Ala	Val
		275					280					285			
His	Tyr	Gly	Val	Ala	Tyr	Arg	Leu	Ala	Pro	Asp	Pro	Asp	Arg	Glu	Gly
	290					295				300					
Lys	Val	Ile	Phe	Ser	Leu	Ser	Arg	Val	Gly	Ser	Ala	Met	Ala	Met	Ala
305					310				315					320	
Ala	Leu	Thr	Thr	Phe	Val	Ala	Gly	Ala	Met	Met	Ile	Pro	Ser	Thr	Val
				325				330						335	
Leu	Ala	Tyr	Thr	Gln	Leu	Gly	Thr	Phe	Met	Met	Leu	Ile	Met	Cys	Ile
			340				345						350		
Ser	Trp	Ala	Phe	Ala	Thr	Phe	Phe	Phe	Gln	Cys	Met	Cys	Arg	Cys	Leu
		355					360					365			
Gly	Pro	Gln	Gly	Thr	Cys	Gly	Gln	Ile	Pro	Leu	Pro	Lys	Lys	Leu	Gln
	370					375					380				
Cys	Ser	Ala	Phe	Ser	His	Ala	Leu	Ser	Thr	Ser	Pro	Ser	Asp	Lys	Gly
385					390					395				400	
Gln	Ser	Lys	Thr	His	Thr	Ile	Asn	Ala	Tyr	His	Leu	Asp	Pro	Arg	Gly
				405					410					415	
Pro	Lys	Ser	Glu	Leu	Glu	His	Glu	Phe	Tyr	Glu	Leu	Glu	Pro	Leu	Ala
			420				425						430		
Ser	His	Ser	Cys	Thr	Ala	Pro	Glu	Lys	Thr	Thr	Tyr	Glu	Glu	Thr	His
		435					440					445			
Ile	Cys	Ser	Glu	Phe	Phe	Asn	Ser	Gln	Ala	Lys	Asn	Leu	Gly	Met	Pro
	450					455					460				
Val	His	Ala	Ala	Tyr	Asn	Ser	Glu	Leu	Ser	Lys	Ser	Thr	Glu	Ser	Asp
465					470					475				480	
Thr	Gly	Ser	Ala	Leu	Leu	Gln	Pro	Pro	Leu	Glu	Gln	His	Thr	Val	Cys
				485					490					495	
His	Phe	Phe	Ser	Leu	Asn	Gln	Arg	Cys	Ser	Cys	Pro	Asp	Ala	Tyr	Lys
			500					505					510		
His	Leu	Asn	Tyr	Gly	Pro	His	Ser	Cys	Gln	Gln	Met	Gly	Asp	Cys	Leu
	515					520						525			
Cys	His	Gln	Cys	Ser	Pro	Thr	Thr	Ser	Ser	Phe	Val	Gln	Ile	Gln	Asn
	530					535					540				
Gly	Val	Ala	Pro	Leu	Lys	Ala	Thr	His	Gln	Ala	Val	Glu	Gly	Phe	Val
545					550				555					560	
His	Pro	Ile	Thr	His	Ile	His	His	Cys	Pro	Cys	Leu	Gln	Gly	Arg	Val
			565					570						575	
Lys	Pro	Ala	Gly	Met	Gln	Asn	Ser	Leu	Pro	Arg	Asn	Phe	Phe	Leu	His
			580				585						590		
Pro	Val	Gln	His	Ile	Gln	Ala	Gln	Glu	Lys	Ile	Gly	Lys	Thr	Asn	Val
	595						600					605			
His	Ser	Leu	Gln	Arg	Ser	Ile	Glu	Glu	His	Leu	Pro	Lys	Met	Ala	Glu
	610					615					620				
Pro	Ser	Ser	Phe	Val	Cys	Arg	Ser	Thr	Gly	Ser	Leu	Leu	Lys	Thr	Cys
625					630				635					640	
Cys	Asp	Pro	Glu	Asn	Lys	Gln	Arg	Glu	Leu	Cys	Lys	Asn	Arg	Asp	Val
			645					650						655	
Ser	Asn	Leu	Glu	Ser	Ser	Gly	Gly	Thr	Glu	Asn	Lys	Ala	Gly	Gly	Lys

660								665				670					
Val	Glu	Leu	Ser	Leu	Ser	Gln	Thr	Asp	Ala	Ser	Val	Asn	Ser	Glu	His		
675								680				685					
Phe	Asn	Gln	Asn	Glu	Pro	Lys	Val	Leu	Phe	Asn	His	Leu	Met	Gly	Glu		
690								695				700					
Ala	Gly	Cys	Arg	Ser	Cys	Pro	Asn	Asn	Ser	Gln	Ser	Cys	Gly	Arg	Ile		
705								710				715					
Val	Arg	Val	Lys	Cys	Asn	Ser	Val	Asp	Cys	Gln	Met	Pro	Asn	Met	Glu		
725								730				735					
Ala	Asn	Val	Pro	Ala	Val	Leu	Thr	His	Ser	Glu	Leu	Ser	Gly	Glu	Ser		
740								745				750					
Leu	Leu	Ile	Lys	Thr	Leu												
755																	

<210> 2115

<211> 461

<212> DNA

<213> Homo sapiens

<400> 2115

acgcgtctct ggcctgggag cgggctcccc cgacacgcca ccttccttgc cagatgggtgc
60

ttctgggtat tccagaatct ggaatggggg atgcctatcc cctcctgag cccacctgct
120

gggtcttgggt ccttggagcc caccaagtcc acaaccacct gctctgaata gaaagctgac
180

attgaaccga acagccgcgt cggaggggga tatctgtgga gagctgtgac tgggagccgg
240

tgtgtgcctt tctgtggtca tttctcgagt cctctgccgg ctgctgccag gtgaaggcat
300

ctccatgcc agccggtggg cagctggggc ggggtggacct ccagcttctg cccgacgggg
360

ttcagatgac cgagatccta cgggattgcc aatgtgtggg gacggggggc tttcagggggc
420

gggaaaacat gtcccatcc gtgggaagtg gagccacgtg g
461

<210> 2116

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2116

Met Gly Thr Cys Phe Pro Ala Pro Glu Ser Pro Pro Ser Pro His Ile
1 5 10 15

Gly Asn Pro Val Gly Ser Arg Ser Ser Glu Pro Arg Arg Ala Glu Ala
20 25 30

Gly Gly Pro Pro Ala Pro Ala Ala His Arg Leu Gly Met Glu Met Pro
35 40 45

Ser Pro Gly Ser Ser Arg Gln Arg Thr Arg Glu Met Thr Thr Glu Arg
50 . 55 60

His Thr Pro Ala Pro Ser His Ser Ser Pro Gln Ile Ser Pro Ser Asp
65 70 75 80

Ala Ala Val Arg Phe Asn Val Ser Phe Leu Phe Arg Ala Gly Gly Cys

85 90 95
 Gly Leu Gly Gly Leu Gln Gly Pro Lys Thr Ser Arg Trp Ala Gln Glu
 100 105 110
 Gly Asp Arg His Pro Pro Phe Gln Ile Leu Glu Tyr Pro Glu Ala Pro
 115 120 125
 Ser Gly Arg Glu Gly Gly Val Ser Gly Glu Pro Ala Pro Arg Pro Glu
 130 135 140
 Thr Arg
 145

<210> 2117
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 2117
 nnacgcgttg gggagacgac ggtgaccttc ccagcaagct catcgcagga tgaaacaatc
 60
 cgcgccagcg ttaagacctt ctcgcgggct gtcaccgccg atctggagaa gtgtggaccg
 120
 atcaggtgac actcgcggtg gactgaatag atgcctgagt ctgaagacac tgtgtggctg
 180
 acccaagagg ccttcgataa gctcaccag gagctggagt acctcaaagg cgaaggccgc
 240
 accgtcattg ccaacaagat tgccgacgcc cgttcggaag gcgacctttc tgagaacggc
 300
 ggctaccatg ccgcccgtga ggagcagggg caggccgagg cccgcatccg tcaactcgag
 360

<210> 2118
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 2118
 Met Pro Glu Ser Glu Asp Thr Val Trp Leu Thr Gln Glu Ala Phe Asp
 1 5 10 15
 Lys Leu Thr Gln Glu Leu Glu Tyr Leu Lys Gly Glu Gly Arg Thr Val
 20 25 30
 Ile Ala Asn Lys Ile Ala Asp Ala Arg Ser Glu Gly Asp Leu Ser Glu
 35 40 45
 Asn Gly Gly Tyr His Ala Ala Arg Glu Glu Gln Gly Gln Ala Glu Ala
 50 55 60
 Arg Ile Arg Gln Leu Glu
 65 70

<210> 2119
 <211> 465
 <212> DNA
 <213> Homo sapiens

<400> 2119
 nacgcgtgaa gggcgcggtg cggcctctca ctggcgagc ctgcactgcc gctgccgect
 60

cgccccgcc ttgccttggc gttgtctctg gcactgtggc ggactgacca cggcccgggc
 120
 atgggctgca agggagacgc gagcggagtt tgctataaaa tgggagttct ggttgtactc
 180
 actgttctgt ggctgttctc ctcagtaaag gccgactcaa aagccattac aacctctctt
 240
 acaacaaaat gggtttccac tccattgttg ttagaagcca gtgagttttt agcagaagac
 300
 agtcaagaga aattttggaa ttttgtagaa gccagtcaaa atattggatc atcagatcat
 360
 gacggtaccg attattccta ctatcatgca atattggagg ctgcatttca gtttctgtca
 420
 cccctccagc agaatttgtt taaatttgt ctgtcccttc acgcg
 465

<210> 2120

<211> 115

<212> PRT

<213> Homo sapiens

<400> 2120

Met	Gly	Cys	Lys	Gly	Asp	Ala	Ser	Gly	Val	Cys	Tyr	Lys	Met	Gly	Val
1				5				10						15	
Leu	Val	Val	Leu	Thr	Val	Leu	Trp	Leu	Phe	Ser	Ser	Val	Lys	Ala	Asp
			20					25					30		
Ser	Lys	Ala	Ile	Thr	Thr	Ser	Leu	Thr	Thr	Lys	Trp	Phe	Ser	Thr	Pro
		35					40					45			
Leu	Leu	Leu	Glu	Ala	Ser	Glu	Phe	Leu	Ala	Glu	Asp	Ser	Gln	Glu	Lys
	50					55				60					
Phe	Trp	Asn	Phe	Val	Glu	Ala	Ser	Gln	Asn	Ile	Gly	Ser	Ser	Asp	His
65					70				75					80	
Asp	Gly	Thr	Asp	Tyr	Ser	Tyr	Tyr	His	Ala	Ile	Leu	Glu	Ala	Ala	Phe
			85					90					95		
Gln	Phe	Leu	Ser	Pro	Leu	Gln	Gln	Asn	Leu	Phe	Lys	Phe	Cys	Leu	Ser
			100					105					110		
Leu	His	Ala													
			115												

<210> 2121

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2121

ccggacaagg tcaatggaat gaaaacctcc cggccgacag acaatagtat aaatgttaca
 60
 tgtggtcctc cttatgaaac taatggcctt aaaacctttt acattttggg agtcagaagt
 120
 ggagggttctt ttgttacaaa atacaacaag acaaactgtc agttttatgt agataatctc
 180
 tactattcaa ctgactatga gtttctgggc tcttttcaca atggagtgtc cgagggagat
 240
 tcagttataa gaaatgagtc aacaaatttt aatgctaaag ccctgattat attcctgggtg
 300

tttctgatta ttgtgacatc aatagccttg cttggt
336

<210> 2122
<211> 112
<212> PRT
<213> Homo sapiens

<400> 2122
Pro Asp Lys Val Asn Gly Met Lys Thr Ser Arg Pro Thr Asp Asn Ser
1 5 10 15
Ile Asn Val Thr Cys Gly Pro Pro Tyr Glu Thr Asn Gly Pro Lys Thr
20 25 30
Phe Tyr Ile Leu Val Val Arg Ser Gly Gly Ser Phe Val Thr Lys Tyr
35 40 45
Asn Lys Thr Asn Cys Gln Phe Tyr Val Asp Asn Leu Tyr Tyr Ser Thr
50 55 60
Asp Tyr Glu Phe Leu Val Ser Phe His Asn Gly Val Tyr Glu Gly Asp
65 70 75 80
Ser Val Ile Arg Asn Glu Ser Thr Asn Phe Asn Ala Lys Ala Leu Ile
85 90 95
Ile Phe Leu Val Phe Leu Ile Ile Val Thr Ser Ile Ala Leu Leu Val
100 105 110

<210> 2123
<211> 426
<212> DNA
<213> Homo sapiens

<400> 2123
aactggggccg agttcggcaa cctgcacccg ttcgccccgg ccgagcaaag cgctgggttat
60
cagcaactga ccgacgaact ggaagcgatg ctctgcgccg ccacagggtta tgacgcgac
120
tccctgcagc cgaacgctgg ctcccagggc gagtacgccg gtctgctggc gatccgcgt
180
taccaccaga gccgtggcga tgagcgtcgc gacatctgcc tgattccgtc ctctgcccac
240
ggcaccaacc cggcaaccgc caacatggcc ggcattgcgcg tggtcgtgac cgcttgcgac
300
gcccgcgga acgtcgacat cgaagacctg cgcgccaagg ctatcgagca ccggaacac
360
ctcgcggcgc tgatgatcac ctaccgctc acccacggcg tgttcgaaga aggcattcgc
420
gagatc
426

<210> 2124
<211> 142
<212> PRT
<213> Homo sapiens

<400> 2124
Asn Trp Ala Glu Phe Gly Asn Leu His Pro Phe Ala Pro Ala Glu Gln

```

      1           5           10           15
Ser Ala Gly Tyr Gln Gln Leu Thr Asp Glu Leu Glu Ala Met Leu Cys
      20           25           30
Ala Ala Thr Gly Tyr Asp Ala Ile Ser Leu Gln Pro Asn Ala Gly Ser
      35           40           45
Gln Gly Glu Tyr Ala Gly Leu Leu Ala Ile Arg Ala Tyr His Gln Ser
      50           55           60
Arg Gly Asp Glu Arg Arg Asp Ile Cys Leu Ile Pro Ser Ser Ala His
      65           70           75           80
Gly Thr Asn Pro Ala Thr Ala Asn Met Ala Gly Met Arg Val Val Val
      85           90           95
Thr Ala Cys Asp Ala Arg Gly Asn Val Asp Ile Glu Asp Leu Arg Ala
      100          105          110
Lys Ala Ile Glu His Arg Glu His Leu Ala Ala Leu Met Ile Thr Tyr
      115          120          125
Pro Ser Thr His Gly Val Phe Glu Glu Gly Ile Arg Glu Ile
      130          135          140

```

<210> 2125

<211> 285

<212> DNA

<213> Homo sapiens

<400> 2125

```

ngtatggcat ctgctgcttc aagttttgtg gtgacaccaa atgtcacttc taacacaacc
60
acagtcaagc ccaatatggt tatgttacct attcaaaaca caagagggttc aagattgggt
120
ctaaaggcgg ctgaagacgc ggcaccaccg gctgtcaccg ttgaagcggc caaggaagag
180
aagccgaagc caccaccaat tggacctaag agaggagcca aggtgagaat tcttaggaag
240
gagtcatact gggtcaaagg agtgggatca gttgtgactg ttgat
285

```

<210> 2126

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2126

```

Xaa Met Ala Ser Ala Ala Ser Ser Phe Val Val Thr Pro Asn Val Thr
      1           5           10           15
Ser Asn Thr Thr Thr Val Lys Pro Asn Met Val Met Leu Pro Ile Gln
      20           25           30
Asn Thr Arg Gly Ser Arg Leu Val Leu Lys Ala Ala Glu Asp Ala Ala
      35           40           45
Pro Pro Ala Val Thr Val Glu Ala Ala Lys Glu Glu Lys Pro Lys Pro
      50           55           60
Pro Pro Ile Gly Pro Lys Arg Gly Ala Lys Val Arg Ile Leu Arg Lys
      65           70           75           80
Glu Ser Tyr Trp Phe Lys Gly Val Gly Ser Val Val Thr Val Asp
      85           90           95

```

<210> 2127
 <211> 454
 <212> DNA
 <213> Homo sapiens

<400> 2127
 atggcagcca agatgcttgc attgttcgct ctcctagctc tttgtgcaag cgccactagt
 60
 gcgacgcata ttccagggca cttgtcacca gtcatgccat tgggtaccat gaacccatgc
 120
 atgcagtact gcatgatgca acaggggctt gccagcttga tggcgtgtcc gtccctgatg
 180
 ctgcagcaac tgttggcctt accgcttcag acgatgccag tgatgatgcc acagatgatg
 240
 acgcctaaca tgatgtcacc attgatgatg ccgagcatga tgtcaccaat ggtcttgccg
 300
 agcatgatgt cgaaatgat gaggccacaa tgtcactgcg acgccgtctc gcagattatg
 360
 ctgcaacagc agttaccatt catgttcaac ccaatggcca tgacgattcc acccatgttc
 420
 ttacagcaac cctttgttgg tgctgcattc taga
 454

<210> 2128
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 2128
 Met Ala Ala Lys Met Leu Ala Leu Phe Ala Leu Leu Ala Leu Cys Ala
 1 5 10 15
 Ser Ala Thr Ser Ala Thr His Ile Pro Gly His Leu Ser Pro Val Met
 20 25 30
 Pro Leu Gly Thr Met Asn Pro Cys Met Gln Tyr Cys Met Met Gln Gln
 35 40 45
 Gly Leu Ala Ser Leu Met Ala Cys Pro Ser Leu Met Leu Gln Gln Leu
 50 55 60
 Leu Ala Leu Pro Leu Gln Thr Met Pro Val Met Met Pro Gln Met Met
 65 70 75 80
 Thr Pro Asn Met Met Ser Pro Leu Met Met Pro Ser Met Met Ser Pro
 85 90 95
 Met Val Leu Pro Ser Met Met Ser Gln Met Met Met Pro Gln Cys His
 100 105 110
 Cys Asp Ala Val Ser Gln Ile Met Leu Gln Gln Gln Leu Pro Phe Met
 115 120 125
 Phe Asn Pro Met Ala Met Thr Ile Pro Pro Met Phe Leu Gln Gln Pro
 130 135 140
 Phe Val Gly Ala Ala Phe
 145 150

<210> 2129
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 2129
acgcgtgact tggatgaacaa acccatatcc atcacccctt tcggtgttga tacggaata
60
ctcacgccct ttgacaagcg gcgtgatgcg aacggcggtg acgggggtgt gcgcatcggg
120
actatcaagg ctctccactc caaatatggg atcggatgaac tcatccgtgc cttcagtcgg
180
gtccatgatg aacggcctaa taccgtcctt cgtatctggg gcggcgggcc agacgagaat
240
cccctcaagg tcttggctcg ccgtcttgct ccggacgggt cggtggagtt tcgcggtgcc
300
attgatcatt ctgaggtcag aaatgccttg ggtagtttgg acatctttgc cgcc
354

<210> 2130
<211> 118
<212> PRT
<213> Homo sapiens

<400> 2130
Thr Arg Asp Leu Val Asn Lys Pro Ile Ser Ile Thr Pro Phe Gly Val
1 5 10 15
Asp Thr Glu Ile Leu Thr Pro Phe Asp Lys Arg Arg Asp Ala Asn Gly
20 25 30
Gly Asp Gly Val Val Arg Ile Gly Thr Ile Lys Ala Leu His Ser Lys
35 40 45
Tyr Gly Ile Gly Glu Leu Ile Arg Ala Phe Ser Arg Val His Asp Glu
50 55 60
Arg Pro Asn Thr Val Leu Arg Ile Trp Gly Gly Gly Pro Asp Glu Asn
65 70 75 80
Pro Leu Lys Val Leu Ala Arg Arg Leu Val Pro Asp Gly Ser Val Glu
85 90 95
Phe Arg Gly Ala Ile Asp His Ser Glu Val Arg Asn Ala Leu Gly Ser
100 105 110
Leu Asp Ile Phe Ala Ala
115

<210> 2131
<211> 324
<212> DNA
<213> Homo sapiens

<400> 2131
gcacgcggc cattgggtat gtgtgcctat tccattggtt atgtggaagg ttgggatcag
60
ccagacagtc attatgatgg tttgttacag ctgggcgagt ggggctttcg aatcaatgac
120
ctgatgaaga cggtagaggg cgcggcaggg tgcattgagt attatgaaat gctcaacgaa
180
caacgccccg acttgtctta tgacatagac ggtattgttt ataaagttga tcagattgac
240
ctgcaagaag agcttggttt tattgctcgt gcgccacgct gggcaattgc tcgaaaattt
300

cctgctcaag aagaagttac gcgt
324

<210> 2132
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2132
Ala Ser Arg Pro Leu Val Met Cys Ala Tyr Ser Ile Gly Tyr Val Glu
1 5 10 15
Gly Trp Asp Gln Pro Asp Ser His Tyr Asp Gly Leu Leu Gln Leu Gly
20 25 30
Glu Trp Gly Phe Arg Ile Asn Asp Leu Met Lys Thr Val Glu Gly Ala
35 40 45
Ala Gly Cys Ile Glu Tyr Tyr Glu Met Leu Asn Glu Gln Arg Pro Asp
50 55 60
Leu Ser Tyr Asp Ile Asp Gly Ile Val Tyr Lys Val Asp Gln Ile Asp
65 70 75 80
Leu Gln Glu Glu Leu Gly Phe Ile Ala Arg Ala Pro Arg Trp Ala Ile
85 90 95
Ala Arg Lys Phe Pro Ala Gln Glu Glu Val Thr Arg
100 105

<210> 2133
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2133
ggtacctgca atatggtatt gcatgacatg aataaatttt tccttactct gaactcacta
60
gtggctgtct ttagaggacc cggcgaactt ttcttgcttt ttcccacttg ctccatcaca
120
tacatcacat caccaacacc catcacatac atacacagtc atgaacggcc atcaggccac
180
accagattac atcgctgtgg atccaaccct gcatttttctt gccctctctt tactgcgagt
240
gtcacctcta cccggaaagg tcttcaacct ccaagtttcc cagtaattta tt
292

<210> 2134
<211> 93
<212> PRT
<213> Homo sapiens

<400> 2134
Met Val Leu His Asp Met Asn Lys Phe Phe Leu Thr Leu Asn Ser Leu
1 5 10 15
Val Ala Val Phe Arg Gly Pro Gly Glu Leu Phe Leu Leu Phe Pro Thr
20 25 30
Cys Ser Ile Thr Tyr Ile Thr Ser Pro Thr Pro Ile Thr Tyr Ile His
35 40 45
Ser His Glu Arg Pro Ser Gly His Thr Arg Leu His Arg Cys Gly Ser

50	55	60
Asn Pro Ala Phe Ser Cys Pro Ser Phe Thr Ala Ser Val Thr Ser Thr		
65	70	75
Arg Lys Gly Leu Gln Pro Pro Ser Phe Pro Val Ile Tyr		80
85	90	

<210> 2135

<211> 439

<212> DNA

<213> Homo sapiens

<400> 2135

```

acgcgttcca ttggtgtgtc gaatttcaag accgagcatc tggacgccat cgagggggcc
60
actccgagcg tcgaccaaat cgagatgcat cctcgttca accaggcgac cttccgcgca
120
gagctggccg agcgcggcat taaccggag gcctggagcc cgctgggcca gtcgaaggac
180
ctcgacaatc ccgtcctcac cgatatttcc aaggcgactg gaaagacgcc tgcccagggtg
240
gtcattcgct ggcacctgca gatcggcaac gtggtattcc ccaagtcggt gacaccatca
300
cgaattgccg agaactttga tgtgttcgat ttcgagctgt ctgacgagca gatcgccgca
360
attgatggcc tggatcacgg caacaggctc ggtggtgacc cttctaccgc cgacttctga
420
ttctgcaaca ataaccggt
439

```

<210> 2136

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2136

Thr Arg Ser Ile Gly Val Ser Asn Phe Lys Thr Glu His Leu Asp Ala		
1	5	10
Ile Glu Gly Ala Thr Pro Ser Val Asp Gln Ile Glu Met His Pro Ser		15
20	25	30
Phe Asn Gln Ala Thr Phe Arg Ala Glu Leu Ala Glu Arg Gly Ile Asn		
35	40	45
Pro Glu Ala Trp Ser Pro Leu Gly Gln Ser Lys Asp Leu Asp Asn Pro		
50	55	60
Val Leu Thr Asp Ile Ser Lys Ala Thr Gly Lys Thr Pro Ala Gln Val		
65	70	75
Val Ile Arg Trp His Leu Gln Ile Gly Asn Val Val Phe Pro Lys Ser		80
85	90	95
Val Thr Pro Ser Arg Ile Ala Glu Asn Phe Asp Val Phe Asp Phe Glu		
100	105	110
Leu Ser Asp Glu Gln Ile Ala Ala Ile Asp Gly Leu Asp His Gly Asn		
115	120	125
Arg Leu Gly Gly Asp Pro Ser Thr Ala Asp Phe		
130	135	

<210> 2137
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 2137
 nncctttgcc ttggetgata ccctcaccac ctgggaacat ccccagaca ccctcttaac
 60
 tccgggacag agatggctgg cggagcctgg ggccgcctgg cctgttactt ggagttcctg
 120
 aagaaggagg agctgaagga gttccagctt ctgctcgcca ataaagcgca ctccaggagc
 180
 tcttccggtg agacacccgc tcagccagag aagacgagtg gcatggagggt ggcctcgta
 240
 ctggtggctc agtatgggga gcagcgggcc tgggacctag ccctccatac ctgggagcag
 300
 atggggctga ggtcactgtg cgcccaagcc
 330

<210> 2138
 <211> 86
 <212> PRT
 <213> Homo sapiens

<400> 2138
 Met Ala Gly Gly Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu
 1 5 10 15
 Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala
 20 25 30
 His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr
 35 40 45
 Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln
 50 55 60
 Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg
 65 70 75 80
 Ser Leu Cys Ala Gln Ala
 85

<210> 2139
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 2139
 gagcagttga ggcgccagaa caccgggatc aacagcaacc tgtcggacat ggccggccag
 60
 gtgaacaagc tggcgagtac catcgcccag tacaacgata agatttccaa agtcaccacc
 120
 gccgcccgtg ccccgaacga cctgctggac cagcgcagcg aggcgggtgcg ccagttgtcc
 180
 gagctggctg ggaccaggt ggtccagcgc ggttcgagtt atgacgtcta tatcggcagc
 240
 ggtcagcgcc tggatgatgg caacagcacc aacaccctgt ccgcagtgcc gagcaaggac
 300

gacccgagcc agtcggcctt gcagctggat cgcggcacca gcaccgtcga tatcacctcc
 360
 acgggtgaccg gtggcgagat cgggtggtctg ctgcgctatc gcagcgatgt gctcgacccg
 420
 tcgatcaacg cgt
 433

<210> 2140

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2140

Glu	Gln	Leu	Ser	Ala	Gln	Asn	Thr	Gly	Ile	Asn	Ser	Asn	Leu	Ser	Asp
1				5				10					15		
Met	Ala	Gly	Gln	Val	Asn	Lys	Leu	Ala	Ser	Thr	Ile	Ala	Gln	Tyr	Asn
			20					25					30		
Asp	Gln	Ile	Ser	Lys	Val	Thr	Thr	Ala	Ala	Gly	Ala	Pro	Asn	Asp	Leu
		35				40						45			
Leu	Asp	Gln	Arg	Ser	Glu	Ala	Val	Arg	Gln	Leu	Ser	Glu	Leu	Val	Gly
	50					55					60				
Thr	Gln	Val	Val	Gln	Arg	Gly	Ser	Ser	Tyr	Asp	Val	Tyr	Ile	Gly	Ser
65				70						75				80	
Gly	Gln	Arg	Leu	Val	Met	Gly	Asn	Ser	Thr	Asn	Thr	Leu	Ser	Ala	Val
			85						90					95	
Pro	Ser	Lys	Asp	Asp	Pro	Ser	Gln	Ser	Ala	Leu	Gln	Leu	Asp	Arg	Gly
		100						105					110		
Thr	Ser	Thr	Val	Asp	Ile	Thr	Ser	Thr	Val	Thr	Gly	Gly	Glu	Ile	Gly
		115						120				125			
Gly	Leu	Leu	Arg	Tyr	Arg	Ser	Asp	Val	Leu	Asp	Pro	Ser	Ile	Asn	Ala
	130					135					140				

<210> 2141

<211> 426

<212> DNA

<213> Homo sapiens

<400> 2141

nnatatccat gcagcgatcc tcataaattt gctgtgttat taggctttgg tgcgacggct
 60
 gtttatcctt atctttcttt ccgcttgatc aatgatattg tggataaagg cgaagtgtta
 120
 ggtgacccaa ttgcttgatc tgttaaatat cgtaaaggta ttaacaaagg cttgatgaaa
 180
 atcctgtcta aaatgggtat ttcaacgatt gcctcttata gtggtgcgca attgtttgaa
 240
 gcggttggtc tggataactaa agtgggtcgac ctttgtttca aaggcgttgc aagtcgtatc
 300
 aaagggtgctc gttttgaaga tttccagcgt gatcaagcaa cgattgccaa taatgcttgg
 360
 aagttacgta aacctattca acagggcggt tatcttaaata acgtacatga ctctgagtat
 420
 cacgcg
 426

<210> 2142
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 2142
 Xaa Tyr Pro Cys Ser Asp Pro His Gln Phe Ala Val Leu Leu Gly Phe
 1 5 10 15
 Gly Ala Thr Ala Val Tyr Pro Tyr Leu Ser Phe Arg Leu Ile Asn Asp
 20 25 30
 Met Val Asp Lys Gly Glu Val Leu Gly Asp Pro Ile Ala Cys His Val
 35 40 45
 Lys Tyr Arg Lys Gly Ile Asn Lys Gly Leu Met Lys Ile Leu Ser Lys
 50 55 60
 Met Gly Ile Ser Thr Ile Ala Ser Tyr Arg Gly Ala Gln Leu Phe Glu
 65 70 75 80
 Ala Val Gly Leu Asp Thr Lys Val Val Asp Leu Cys Phe Lys Gly Val
 85 90 95
 Ala Ser Arg Ile Lys Gly Ala Arg Phe Glu Asp Phe Gln Arg Asp Gln
 100 105 110
 Ala Thr Ile Ala Asn Asn Ala Trp Lys Leu Arg Lys Pro Ile Gln Gln
 115 120 125
 Gly Gly Tyr Leu Lys Tyr Val His Asp Ser Glu Tyr His Ala
 130 135 140

<210> 2143
 <211> 1008
 <212> DNA
 <213> Homo sapiens

<400> 2143
 gccggcttga caagcatgtt caccggtgac gctgtcgtga tcgtcgaggt gagccaattg
 60
 tgtcatattg tacgcagtat gtcttttcaa cgattcttgg cgggggtggc agccatcttg
 120
 cttctcctgc ctactgctg cgctgatgat ggcgagcgcc ccgttgctga taacctcggg
 180
 acggtcctca gcccctcaa ctccctcatt cgcgagccgg cgaattcgtc agtcaacggg
 240
 acgtcaaga gcacatatga gtacctccgg ctcatcgacg gtcacgatct acccgacgac
 300
 gatggctacg ctcatgatca tctggtcgcg gctttgcgcc cgtatttggt gaatggtgga
 360
 gacagtcggc aggcccacgt caccctaactc atggcggcgt catccctgaa aaccctcaac
 420
 gcgttgctcg acaaggagag atcagaggtc gacaaacgta cccgcctgcc gaagggtgc
 480
 atcacgagaa agacggtgat gacggatctg cccatcgcca cgatgaggcg ggagatcggc
 540
 ctgtccaacg acgggttggt cctcacaccg tggaaggcca agacgacttc ttccgaggag
 600
 gctcggtggg cgatgcaggc gctggccagt gccgacctat tcagcaatgc taaggacgcc
 660

gagaaatggg ggtgggagtc gatctcggac gggatatttgc gccatctcga gacctacagt
 720
 ggccccagta cgactatcgc gatggccttg tcggcggcga ataccgtctc tacattgtct
 780
 cgttcccagt tgcaacgcac cggcgacagt ctgcgcatg cgccatatcc gaggaaggac
 840
 cttgggtccgg cgctcattcg caatggaaag cgggtcaagg acaagtgcag tatcgaatcg
 900
 gcgtacctgt tgaggtattc cgggaattgg gcgtgggtgac atgacgggtt cttggcaagg
 960
 tgtgaccaag acattcccct cgggcgattc cgcgcgtggg ggggtgcac
 1008

<210> 2144

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2144

Met	Phe	Thr	Gly	Asp	Ala	Val	Val	Ile	Val	Glu	Val	Ser	Gln	Leu	Cys	1	5	10	15
His	Ile	Val	Arg	Ser	Met	Ser	Phe	Gln	Arg	Phe	Leu	Ala	Gly	Val	Ala	20	25	30	
Ala	Ile	Leu	Leu	Leu	Leu	Pro	Thr	Ala	Cys	Ala	Asp	Asp	Ala	Gln	Ala	35	40	45	
Pro	Val	Val	Asp	Asn	Leu	Gly	Thr	Val	Leu	Ser	Pro	Ser	Asn	Ser	Leu	50	55	60	
Ile	Arg	Glu	Pro	Ala	Asn	Ser	Ser	Val	Asn	Gly	Thr	Leu	Lys	Ser	Thr	65	70	75	80
Tyr	Glu	Tyr	Leu	Arg	Leu	Ile	Asp	Gly	His	Asp	Leu	Pro	Asp	Asp	Asp	85	90	95	
Gly	Tyr	Ala	His	Asp	His	Leu	Val	Ala	Ala	Leu	Arg	Pro	Tyr	Leu	Val	100	105	110	
Asn	Gly	Gly	Asp	Ser	Arg	Gln	Ala	His	Val	Thr	Gln	Leu	Met	Ala	Ala	115	120	125	
Ser	Ser	Leu	Lys	Thr	Leu	Asn	Ala	Leu	Ser	Asp	Lys	Glu	Arg	Ser	Glu	130	135	140	
Val	Asp	Lys	Arg	Thr	Arg	Leu	Pro	Lys	Gly	Cys	Ile	Thr	Arg	Lys	Thr	145	150	155	160
Val	Met	Thr	Asp	Leu	Pro	Ile	Ala	Thr	Met	Arg	Arg	Glu	Ile	Gly	Leu	165	170	175	
Ser	Asn	Asp	Gly	Leu	Cys	Leu	Thr	Pro	Trp	Lys	Val	Lys	Thr	Thr	Ser	180	185	190	
Ser	Glu	Glu	Ala	Arg	Trp	Ala	Met	Gln	Ala	Leu	Ala	Ser	Ala	Asp	Leu	195	200	205	
Phe	Ser	Asn	Ala	Lys	Asp	Ala	Glu	Lys	Trp	Gly	Trp	Glu	Ser	Ile	Ser	210	215	220	
Asp	Gly	Tyr	Leu	Arg	His	Leu	Glu	Thr	Tyr	Ser	Gly	Pro	Ser	Thr	Thr	225	230	235	240
Ile	Ala	Met	Ala	Leu	Ser	Ala	Ala	Asn	Thr	Val	Ser	Thr	Leu	Ser	Arg	245	250	255	
Ser	Gln	Leu	Gln	Arg	Ile	Gly	Asp	Ser	Leu	Ala	Asp	Ala	Pro	Tyr	Pro	260	265	270	
Arg	Lys	Asp	Leu	Gly	Pro	Ala	Leu	Ile	Arg	Asn	Gly	Lys	Pro	Val	Lys				

275 280 285
 Asp Lys Cys Ser Ile Glu Ser Ala Tyr Leu Leu Arg Tyr Ser Gly Asn
 290 295 300
 Trp Ala Trp
 305

<210> 2145
 <211> 389
 <212> DNA
 <213> Homo sapiens

<400> 2145
 tctagaatcg tgtataacat tctacacaat aagctaagcc tactcttgta gagtgcgac
 60
 atgacaaccc ttgaacaatc attatctcaa attcccgcac ttctgattat tcatgaacat
 120
 ttatttagct cggcccagcc ttctgctgaa caactaaaat tgattaaaga gtttggttgt
 180
 agcacagtca ttaaccttgc tttaactaat gcttcaaata atcttgagaa tgaagaccgt
 240
 atttggttag accttggttt aaattatatt catattccaa ttgattggga gatgccttct
 300
 gctgagcagt gcttattagt tttagatttg attgatcatt tagtgcaaaa tgaaattggt
 360
 tggatacatt gcgcaaaaaa taaacgcgt
 389

<210> 2146
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 2146
 Met Thr Thr Leu Glu Gln Ser Leu Ser Gln Ile Pro Ala Phe Ser Ile
 1 5 10 15
 Ile His Glu His Leu Phe Ser Ser Ala Gln Pro Ser Ala Glu Gln Leu
 20 25 30
 Lys Leu Ile Lys Glu Phe Gly Cys Ser Thr Val Ile Asn Leu Ala Leu
 35 40 45
 Thr Asn Ala Ser Asn His Leu Glu Asn Glu Asp Arg Ile Cys Leu Asp
 50 55 60
 Leu Gly Leu Asn Tyr Ile His Ile Pro Ile Asp Trp Glu Met Pro Ser
 65 70 75 80
 Ala Glu Gln Cys Leu Val Leu Asp Leu Ile Asp His Leu Val Gln
 85 90 95
 Asn Glu Ile Val Trp Ile His Cys Ala Lys Asn Lys Arg
 100 105

<210> 2147
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 2147

ctccctgctg gctgctctc cgaggacatg tgcagtcctg acccctgttt caatgggtggg
 60
 acttgccctg tcacctggaa tgacttccac tgtacctgcc ctgccaatTT cagggggcct
 120
 acatgtgccc agcagctgtg gtgtcccggc cagccctgtc tcccacctgc cacgtgtgtg
 180
 gcggaggcca cgttccgcga gggcccccc gccgcgttca gcgggcacaa cgcgt
 235

<210> 2148

<211> 78

<212> PRT

<213> Homo sapiens

<400> 2148

Leu	Pro	Ala	Gly	Cys	Val	Ser	Glu	Asp	Met	Cys	Ser	Pro	Asp	Pro	Cys
1				5					10					15	
Phe	Asn	Gly	Gly	Thr	Cys	Leu	Val	Thr	Trp	Asn	Asp	Phe	His	Cys	Thr
		20						25					30		
Cys	Pro	Ala	Asn	Phe	Thr	Gly	Pro	Thr	Cys	Ala	Gln	Gln	Leu	Trp	Cys
		35					40					45			
Pro	Gly	Gln	Pro	Cys	Leu	Pro	Pro	Ala	Thr	Cys	Val	Ala	Glu	Ala	Thr
	50					55					60				
Phe	Arg	Glu	Gly	Pro	Pro	Ala	Ala	Phe	Ser	Gly	His	Asn	Ala		
65					70					75					

<210> 2149

<211> 1474

<212> DNA

<213> Homo sapiens

<400> 2149

ntactgccac cattggaact tttgatgttg atggggaaga gttgcaacac ctccagggtt
 60
 gtctgtctga tgggtggctgc gaatgatttg ccttgacaat agctgaaaaa ccaccatctg
 120
 caacacgtgg gagtaagact tctcctgctc tttgccagtg gtctgaggtg atgaaccacc
 180
 ctggcttggt gtgctgtgtc cagcaaacta caggggtgcc gctggtagtt atgggtgaaac
 240
 cagacacttt tcttatccac gagattaaga ctcttcctgc taaagcgaag atccaagaca
 300
 tggttgctat taggcacacg gcctgcaatg agcagcagcg gacaacaatg attctgtgtg
 360
 gtgaggatgg cagcctgcgc atttcatgg ccaacgtgga gaacacctcc tactggctgc
 420
 agccatccct gcagcccagc agtgtcatca gcatcatgaa gcctgttcga aagcgcaaaa
 480
 cagctacaat cacaaccng cacgtctagc caggtgactt tccccattga cttttttgaa
 540
 cacaaccagc agctgacaga tgtggagttt ggtggtaacg acctcctaca ggtctataat
 600
 gcacaacaga taaaacaccg gctgaattcc actggcatgt atgtggccaa caccaagccc
 660

ggaggcttca ccattgagat tagtaacaac aatagcacta tggatgatgac aggcattgcgg
 720
 atccagattg ggactcaagc aatagaacgg gccccgtcat atatcgagat ctteggcaga
 780
 actatgcagc tcaacctgag tcgctcacgc tggtttgact tcccccttcac cagagaagaa
 840
 gccctgcagg ctgataagaa gctgaacctc ttcattgggg cctcgggtga tccagcaggt
 900
 gtcaccatga tagatgctgt aaaaatttat ggcaagacta aggagcagtt tggctggcct
 960
 gatgagcccc cagaagaatt cccttctgcc tctgtcagca acatctgccc ttcaaactctg
 1020
 aaccagagca acggcactgg agatagcgac tcagctgccc ccactacgac cagtgggaact
 1080
 gtccctggaga ggctgggtgt gagttcttta gaagccctgg aaagctgctt tgccgttggc
 1140
 ccaatcatcg agaaggagag aaacaagaat gctgctcagg agctggccac tttgctgttg
 1200
 tccttgccag cacctgccag tgtccagcag cagtccaaga gccttctggc cagcctgcac
 1260
 accagccgct cggcctacca cagccacaag gtaactgttc tctcagggaa aggaaattgc
 1320
 agtgctgaca gggaatcaaa taagttagct cttcattgta aagcaacagc acagcaaagt
 1380
 aaggtagagg gaggatagca ttcagattag acctacattt tacagagttt ctccctgagaa
 1440
 attctcaagt gccactcaaa actgagggtg agcc
 1474

<210> 2150

<211> 312

<212> PRT

<213> Homo sapiens

<400> 2150

Ser	Leu	Phe	Glu	Ser	Ala	Lys	Gln	Leu	Gln	Ser	Gln	Pro	Xaa	Thr	Ser
1				5				10						15	
Ser	Gln	Val	Thr	Phe	Pro	Ile	Asp	Phe	Phe	Glu	His	Asn	Gln	Gln	Leu
		20						25					30		
Thr	Asp	Val	Glu	Phe	Gly	Gly	Asn	Asp	Leu	Leu	Gln	Val	Tyr	Asn	Ala
		35					40					45			
Gln	Gln	Ile	Lys	His	Arg	Leu	Asn	Ser	Thr	Gly	Met	Tyr	Val	Ala	Asn
		50				55					60				
Thr	Lys	Pro	Gly	Gly	Phe	Thr	Ile	Glu	Ile	Ser	Asn	Asn	Asn	Ser	Thr
65					70					75				80	
Met	Val	Met	Thr	Gly	Met	Arg	Ile	Gln	Ile	Gly	Thr	Gln	Ala	Ile	Glu
			85					90					95		
Arg	Ala	Pro	Ser	Tyr	Ile	Glu	Ile	Phe	Gly	Arg	Thr	Met	Gln	Leu	Asn
		100						105					110		
Leu	Ser	Arg	Ser	Arg	Trp	Phe	Asp	Phe	Pro	Phe	Thr	Arg	Glu	Glu	Ala
		115					120					125			
Leu	Gln	Ala	Asp	Lys	Lys	Leu	Asn	Leu	Phe	Ile	Gly	Ala	Ser	Val	Asp
	130					135					140				
Pro	Ala	Gly	Val	Thr	Met	Ile	Asp	Ala	Val	Lys	Ile	Tyr	Gly	Lys	Thr

145 150 155 160
 Lys Glu Gln Phe Gly Trp Pro Asp Glu Pro Pro Glu Glu Phe Pro Ser
 165 170 175
 Ala Ser Val Ser Asn Ile Cys Pro Ser Asn Leu Asn Gln Ser Asn Gly
 180 185 190
 Thr Gly Asp Ser Asp Ser Ala Ala Pro Thr Thr Thr Ser Gly Thr Val
 195 200 205
 Leu Glu Arg Leu Val Val Ser Ser Leu Glu Ala Leu Glu Ser Cys Phe
 210 215 220
 Ala Val Gly Pro Ile Ile Glu Lys Glu Arg Asn Lys Asn Ala Ala Gln
 225 230 235 240
 Glu Leu Ala Thr Leu Leu Leu Ser Leu Pro Ala Pro Ala Ser Val Gln
 245 250 255
 Gln Gln Ser Lys Ser Leu Leu Ala Ser Leu His Thr Ser Arg Ser Ala
 260 265 270
 Tyr His Ser His Lys Val Thr Val Leu Ser Gly Lys Gly Asn Cys Ser
 275 280 285
 Ala Asp Arg Glu Ser Asn Lys Leu Ala Leu His Cys Lys Ala Thr Ala
 290 295 300
 Gln Gln Ser Lys Val Glu Gly Gly
 305 310

<210> 2151

<211> 511

<212> DNA

<213> Homo sapiens

<400> 2151

gccggcggttt acctgtgggg cccgggtcggg cgcggaaga cctggctgat ggatcaattc
 60
 caccaaagcc tgnnccgggtg ccggcgcnng cggcagcact ttcatacatt catgggctgg
 120
 gtgcatacagc gctcctttca gttgaccggg atcgccgatc cattgcgggc gctggctcgt
 180
 gagctggcgg ccgaggtgcg ggtgctgtgt ttcgatgagc tgttcgtcaa tgacatcggc
 240
 gacgcgatca ttctcggggc cctgtttcag gtgatgttcg acgcaggcgt ggtggtggtc
 300
 tgcacctcca atctgccgcc ggatcagctg tatgccgacg gcttcaaccg cgaccgttc
 360
 ctgccggcga tcaccgcgat caaacagcac atgcaagtgg tcgcggtgaa tggcgcgga
 420
 gatcatcgt tgcataccgg cgccatcgag cagcggtact gggtcgctct gccggagcag
 480
 ggtagcgcgt tgagccaggt gttcgacgcg t
 511

<210> 2152

<211> 170

<212> PRT

<213> Homo sapiens

<400> 2152

Ala Gly Val Tyr Leu Trp Gly Pro Val Gly Arg Gly Lys Thr Trp Leu

1	5	10	15
Met Asp Gln Phe His Gln Ser Leu Xaa Gly Cys Arg Arg Xaa Arg Gln			
20	25	30	
His Phe His His Phe Met Gly Trp Val His Gln Arg Ser Phe Gln Leu			
35	40	45	
Thr Gly Ile Ala Asp Pro Leu Arg Ala Leu Ala Arg Glu Leu Ala Ala			
50	55	60	
Glu Val Arg Val Leu Cys Phe Asp Glu Leu Phe Val Asn Asp Ile Gly			
65	70	75	80
Asp Ala Ile Ile Leu Gly Arg Leu Phe Gln Val Met Phe Asp Ala Gly			
85	90	95	
Val Val Val Val Cys Thr Ser Asn Leu Pro Pro Asp Gln Leu Tyr Ala			
100	105	110	
Asp Gly Phe Asn Arg Asp Arg Phe Leu Pro Ala Ile Thr Ala Ile Lys			
115	120	125	
Gln His Met Gln Val Val Ala Val Asn Gly Ala Glu Asp His Arg Leu			
130	135	140	
His Pro Gly Ala Ile Glu Gln Arg Tyr Trp Val Ala Leu Pro Glu Gln			
145	150	155	160
Gly Ser Ala Leu Ser Gln Val Phe Asp Ala			
165	170		

<210> 2153

<211> 528

<212> DNA

<213> Homo sapiens

<400> 2153

```

nnaccggtgc caaagagctg gggatcaacc tgccgaacac cgccggtacg cagcaggtgt
60
tcagtacgtg cacggcgatt ggcggcgga attgggacca ctccgcgctg atcaagggcc
120
tggagcatat ggccaacttt tcgattcgcg atcaataagc cacaccgctc ccaccttga
180
tggcattcca agtctgaaat tgatccatct ctaataacaa aaatccccgg gagcccgtt
240
atgtcggtcg atccgcaaca cctgcttcgc gagctgtttg ccacagccat cgatgccgcc
300
cacccccggc atgtccttga accttatctg cccgctgacc gcacaggccg tgtgattgtg
360
attgggcccg gcaaaaccgc acccgccatg gccctcgtcg tcgagaacgg ctggcaaggg
420
gaagtcaccg gcctgggtggc caccgctac ggccacggcg cgccgtgcaa aaaaatcgaa
480
gtggtcgagg ccgctcaccc ggtgccggat gccgccggcc tggcggtg
528

```

<210> 2154

<211> 96

<212> PRT

<213> Homo sapiens

<400> 2154

Met Ser Val Asp Pro Gln His Leu Leu Arg Glu Leu Phe Ala Thr Ala

```

1           5           10           15
Ile Asp Ala Ala His Pro Arg His Val Leu Glu Pro Tyr Leu Pro Ala
20           25           30
Asp Arg Thr Gly Arg Val Ile Val Ile Gly Pro Gly Lys Thr Ala Pro
35           40           45
Ala Met Ala Leu Val Val Glu Asn Gly Trp Gln Gly Glu Val Thr Gly
50           55           60
Leu Val Val Thr Arg Tyr Gly His Gly Ala Pro Cys Lys Lys Ile Glu
65           70           75           80
Val Val Glu Ala Ala His Pro Val Pro Asp Ala Ala Gly Leu Ala Val
85           90           95

```

<210> 2155
 <211> 297
 <212> DNA
 <213> Homo sapiens

```

<400> 2155
gtgcaccgcc acggcacacc cgccatgccg cgccgctatt tcgaggccct gctgcaggag
60
ttcggccccg actgcgaggt gctcaccgtc accgattcag agggcaaccc cctcagttcg
120
gtgctcagtt tctacttccg tgatgaagtg ctgccctact atgcggggcga cgccgtcgcg
180
gcgcgcgaac tggcggccaa tgacttcaaa tactgggagc tgatgcgacg cgctgtgcg
240
cgcgccctca aggtgtttga ctacggccgc agcaagcagg gcacggggctc ctacgcn
297

```

<210> 2156
 <211> 91
 <212> PRT
 <213> Homo sapiens

```

<400> 2156
Met Pro Arg Arg Tyr Phe Glu Ala Leu Leu Gln Glu Phe Gly Pro Asp
1           5           10           15
Cys Glu Val Leu Thr Val Thr Asp Ser Glu Gly Asn Pro Leu Ser Ser
20           25           30
Val Leu Ser Phe Tyr Phe Arg Asp Glu Val Leu Pro Tyr Tyr Ala Gly
35           40           45
Asp Ala Val Ala Ala Arg Glu Leu Ala Ala Asn Asp Phe Lys Tyr Trp
50           55           60
Glu Leu Met Arg Arg Ala Cys Ala Arg Gly Leu Lys Val Phe Asp Tyr
65           70           75           80
Gly Arg Ser Lys Gln Gly Thr Gly Ser Tyr Ala
85           90

```

<210> 2157
 <211> 711
 <212> DNA
 <213> Homo sapiens

<400> 2157

naccgagata acgaggtcgt catcatctcc actgggtccc aaggtgagcc actttcggcc
 60
 ctagcaagga tcgccaaccg agagcaccga gacatcgagg tgggggaggg agataccgtt
 120
 ttgctggcat cctctctcat cccgggtaat gagaatgccg tctatcgagt gattaatggc
 180
 ctgacgaagc ttggcgccgc cgtggtacat aagggaacg ctttgggtcca cgtttcggc
 240
 catgccgcag cgggagagct gctgtacgcg tataacatcg tgcggccacg cgctgtgatg
 300
 ccgattcatg gtgaggtgcg tcattctgtc gctaataccg atctggccaa agcaaccggt
 360
 gtcgatgaga acaacgtggt gcttgtcgag gacggcgggg ttattgacct tgttgacgga
 420
 gtaccgcgag ttgttgccaa ggtcgatgcc tcgtacatcc ttgttgacgg atctgggggtg
 480
 ggggagctta ccgaggacac gctcactgat cgccgtatcc tcggtgagga gggattcttg
 540
 tcagtcgtca ccgtggtcga caccgcctcg gcgtcagtgg tgtctcgccc ggcgatccag
 600
 gcgcgtgggt ttgccgaggg cgactcggtc ttcgcggaga tcaccgacca gatcgtcacc
 660
 gagctagaga aggcgatggc cgggtggtatg gacgataccc accggttgca a
 711

<210> 2158

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2158

Xaa	Arg	Asp	Asn	Glu	Val	Val	Ile	Ile	Ser	Thr	Gly	Ser	Gln	Gly	Glu
1				5					10					15	
Pro	Leu	Ser	Ala	Leu	Ala	Arg	Ile	Ala	Asn	Arg	Glu	His	Arg	Asp	Ile
			20					25					30		
Glu	Val	Gly	Glu	Gly	Asp	Thr	Val	Leu	Leu	Ala	Ser	Ser	Leu	Ile	Pro
		35				40						45			
Gly	Asn	Glu	Asn	Ala	Val	Tyr	Arg	Val	Ile	Asn	Gly	Leu	Thr	Lys	Leu
	50					55					60				
Gly	Ala	Ala	Val	Val	His	Lys	Gly	Asn	Ala	Leu	Val	His	Val	Ser	Gly
65					70					75				80	
His	Ala	Ala	Ala	Gly	Glu	Leu	Leu	Tyr	Ala	Tyr	Asn	Ile	Val	Arg	Pro
			85						90					95	
Arg	Ala	Val	Met	Pro	Ile	His	Gly	Glu	Val	Arg	His	Leu	Val	Ala	Asn
		100						105					110		
Ala	Asp	Leu	Ala	Lys	Ala	Thr	Gly	Val	Asp	Glu	Asn	Asn	Val	Val	Leu
	115						120					125			
Val	Glu	Asp	Gly	Gly	Val	Ile	Asp	Leu	Val	Asp	Gly	Val	Pro	Arg	Val
	130					135					140				
Val	Gly	Lys	Val	Asp	Ala	Ser	Tyr	Ile	Leu	Val	Asp	Gly	Ser	Gly	Val
145					150					155				160	
Gly	Glu	Leu	Thr	Glu	Asp	Thr	Leu	Thr	Asp	Arg	Arg	Ile	Leu	Gly	Glu
				165					170					175	
Glu	Gly	Phe	Leu	Ser	Val	Val	Thr	Val	Val	Asp	Thr	Arg	Ser	Ala	Ser

	180		185		190										
Val	Val	Ser	Arg	Pro	Ala	Ile	Gln	Ala	Arg	Gly	Phe	Ala	Glu	Gly	Asp
	195						200					205			
Ser	Val	Phe	Ala	Glu	Ile	Thr	Asp	Gln	Ile	Val	Thr	Glu	Leu	Glu	Lys
	210					215					220				
Ala	Met	Ala	Gly	Gly	Met	Asp	Asp	Thr	His	Arg	Leu	Gln			
225					230					235					

<210> 2159
 <211> 322
 <212> DNA
 <213> Homo sapiens

<400> 2159
 tcgcgagcac actccagcct ctggagagac gacaacgcgt gaaggggcac cagcttgcgg
 60
 ggcagcagct ccaggggcgg cctgggaggg ctttgtgcag aagaagcctg tttccttcta
 120
 cctgttttga aaagttgtct ctgcagatgg tgggtgagag ttcgctgccca gggccactgt
 180
 cttccctgcc ctgcggacac ttcttcccca ccttccctaaa gctgtgggag acctggagcc
 240
 gtggagcatc aatggctctt tgactcagga atcttaaaaa atcacaccct ggggctacca
 300
 tgggggcctt ctggttctcc tt
 322

<210> 2160
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2160
 Met Val Ala Pro Gly Cys Asp Phe Leu Arg Phe Leu Ser Gln Arg Ala
 1 5 10 15
 Ile Asp Ala Pro Arg Leu Gln Val Ser His Ser Phe Arg Lys Val Gly
 20 25 30
 Lys Lys Cys Pro Gln Gly Arg Glu Asp Ser Gly Pro Gly Ser Glu Leu
 35 40 45
 Ser Pro Thr Ile Cys Arg Asp Asn Phe Ser Lys Gln Val Glu Gly Asn
 50 55 60
 Arg Leu Leu Leu His Lys Ala Leu Pro Gly Arg Pro Trp Ser Cys Cys
 65 70 75 80
 Pro Ala Ser Trp Cys Pro Phe Thr Arg Cys Arg Leu Ser Arg Gly Trp
 85 90 95
 Ser Val Leu Ala
 100

<210> 2161
 <211> 1070
 <212> DNA
 <213> Homo sapiens

<400> 2161

tcttagggga aggggaaggct tatctgaaga gtagacctct ggttttgaat gagggagaca
 60
 gtggggatat gaggggagga aacctcaaaa agaatatgta tccatcacta tgaaagggtta
 120
 ggctatacag ggggaagcctc caaagggaaa tctggaaaaa tgttctgaga gggacattaa
 180
 ggatgtactc agaaattaag aaaacatatt aggacttgcc aaaagtgaga gaagcaactg
 240
 aggagactta tatgcaaaaa tcgcaaagaa ggagagaaca aaagatggag gttggatgct
 300
 aaatagggaa agagaacgcg tgaatgaggt agggggcaga acatgcagtg cagaaaaaca
 360
 acagatatgg aagggcatta aagaggggcta aatgggaata ttaggaaatg agagttggga
 420
 atttgtcaga gttgtgtatt aacaaggaga gggtaaggta agaaggtggc aaagtaagag
 480
 ccagggcata aggttttgct gtccaggaag ctttgttgga aaaatgttag aagtaatggg
 540
 tttggtcagt atggtgagag gtgagagagg ctaaaggga tgggcataaa gggcaggcca
 600
 gtggcaagaa tcctatgaaa gtgtaggcag atctgagagc acagacaaat acagtggaga
 660
 atgtggcaca gggcagaggg cagtgggctg agcagcgagt gcccatgggg aggggagtat
 720
 ccagaagaac ccattgagtc cctaagaatg acacacaggt gacagctgaa agaaggaggg
 780
 acacagaaga tatagcagca tgattctctg gggcaaaatg aggaagaaag gaatggaaga
 840
 agaaagtga gggttcctgc tgatgtgagg ggatgactgg aggaaaggca ggtattgact
 900
 ggggggtaaa ggaaccattc ttggatcaag gttatgatgg aataagaagg aagagagagc
 960
 tggctagctg agtaaaggac catcgtataa aacagacaaa agttaagact agatggagtg
 1020
 gcaactaggc agatcagatg tattttttaa aggggaaact gctaagatct
 1070

<210> 2162

<211> 145

<212> PRT

<213> Homo sapiens

<400> 2162

Met	Val	Leu	Tyr	Ser	Ala	Ser	Gln	Leu	Ser	Leu	Pro	Ser	Tyr	Ser	Ile
1				5				10						15	
Ile	Thr	Leu	Ile	Gln	Glu	Trp	Phe	Leu	Tyr	Pro	Pro	Val	Asn	Thr	Cys
			20					25					30		
Leu	Ser	Ser	Ser	His	Pro	Leu	Thr	Ser	Ala	Gly	Thr	Leu	His	Phe	Leu
			35				40					45			
Leu	Pro	Phe	Leu	Ser	Ser	Ser	Phe	Cys	Pro	Arg	Glu	Ser	Cys	Cys	Tyr
		50				55				60					
Ile	Phe	Cys	Val	Pro	Pro	Ser	Phe	Ser	Cys	His	Leu	Cys	Val	Ile	Leu
65					70				75					80	
Arg	Asp	Ser	Met	Gly	Ser	Ser	Gly	Tyr	Ser	Pro	Pro	His	Gly	His	Ser

85 90 95
 Leu Leu Ser Pro Leu Pro Ser Ala Leu Cys His Ile Leu His Cys Ile
 100 105 110
 Cys Leu Cys Ser Gln Ile Cys Leu His Phe His Arg Ile Leu Ala Thr
 115 120 125
 Gly Leu Pro Phe Met Pro Ile Pro Phe Ser Leu Ser His Leu Ser Pro
 130 135 140
 Tyr
 145

<210> 2163
 <211> 657
 <212> DNA
 <213> Homo sapiens

<400> 2163
 tattttaaatc tttataaaaa aggtaggagg atcaggactt cgacccccctt aaaacgcggc
 60
 ggctccctc caatccacct ccacttecta caccacccc gctctcccc ccccccttt
 120
 tggttccggg ttggaaggtt gggtgaaatg ggaaccgaat accaatttca cccgggaacc
 180
 agtaatgccc atgataaccg ccaagttggg accgaagttg ggatccataa gtacgggcgg
 240
 ccagtggggt ggaattgggt taagccccct cccagccttt ctccgaccgc gtgctccgtc
 300
 agacatgcca agaggtctc tctccaggag agccacctgt gaaaccacc cggcatgctc
 360
 ctcccaccac tgtgcacaga cgagtgcctg ggctccagag agggagggag ctgaaggcct
 420
 cagacaggag tccgtcccggt ccagtcccat catccaaga aacatccggc ccgactccct
 480
 gcagctccat ggctcaacaa ggtgcggatg cctgctggac ctggctgctt tccatccaac
 540
 tttgatccct tccccaagag gaagagtgt acctagggac aagtgtggtg cgcacaggca
 600
 tgcagcctgg tctcttgctc aggcggcttg cgcagattcc tagaggaatc tgcagcg
 657

<210> 2164
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 2164
 Met Pro Met Ile Thr Ala Lys Leu Gly Pro Lys Leu Gly Ser Ile Ser
 1 5 10 15
 Thr Gly Gly Gln Trp Gly Gly Ile Gly Leu Ser Pro Leu Pro Ala Phe
 20 25 30
 Leu Arg Pro Arg Ala Pro Ser Asp Met Pro Arg Gly Ser Leu Ser Arg
 35 40 45
 Arg Ala Thr Cys Glu Thr His Pro Ala Cys Ser Ser His His Cys Ala
 50 55 60
 Gln Thr Ser Ala Trp Ala Pro Glu Arg Glu Gly Ala Glu Gly Leu Arg

65					70					75				80	
Gln	Glu	Ser	Val	Pro	Ser	Ser	Pro	Ile	Ile	Pro	Arg	Asn	Ile	Arg	Pro
				85					90				95		
Asp	Ser	Leu	Gln	Leu	His	Gly	Ser	Thr	Arg	Cys	Gly	Cys	Leu	Leu	Asp
			100					105					110		
Leu	Ala	Ala	Phe	His	Pro	Thr	Leu	Ile	Pro	Ser	Pro	Arg	Gly	Arg	Val
		115					120					125			
Leu	Pro	Arg	Asp	Lys	Cys	Gly	Ala	His	Arg	His	Ala	Ala	Trp	Ser	Leu
	130					135					140				
Ala	Gln	Ala	Ala	Cys	Ala	Asp	Ser								
145						150									

<210> 2165

<211> 962

<212> DNA

<213> Homo sapiens

<400> 2165

```

nctttctcat cgacagcgac gcacaaccgg cgacatcacc ggtgacgggt caaggtggca
60
gcccgagggc ccgccgtgaa cttatttgtt cgtcttatgg aagaaaagtc actcggaagt
120
accgtaaata accccagcgc ctcattcccc gaattctgtt gccattctgt gtcgccccctg
180
cgcttaaggc atcacccac tagactgacc gaagtctcgc cgagggaggc tagggaggct
240
taggtggcca ggaatgacat cgggacgacg tctacgcgtc gaataggcag cggacgtacg
300
tcgagtaccg gccgtacggg ggtgtcttct gaccgcacac gcagagctat cgctaaaaga
360
ttgatggccc gcacctcagc tatgacgacg gccactctag aggaaatggg tcgtcgacac
420
tcttggttcc gtgatctgtc agccgaagaa agatcgtgga tctcgatcgt ggctcgctca
480
ggatttgacg gcttcgtcca gtggtttgct gacgatgacg ccgagcccta cccccacc
540
gacgtcttcg acgtggcgcc ccggtccatg acccgcaaga tctccttgca ccagacagtc
600
gagctcgctc gcaccacgat tgacgtcgtt gaggcacaaa ttgagaccga aatgccacgc
660
ggtgatcgcc aagtgtctgc cactgccatc gttcactact cccgcgaggt ggccttcgcc
720
gccgccgagg tttacgcgcg agccgccgaa cgtcgcggta cctgggatga acgtctggaa
780
tccctcgctc ttgatgccgt cgtgcgagcc gacgccgatg aacagctcat ctgcgagct
840
tctactctcg gctggcgccc gggcatcaac ctctgcgtcg ttgtcgggcg gggcccgacg
900
accgagcatg aactccacgt gctgcgacgt gatggagaac gcatgcagat gacggtgcta
960
gc
962

```

<210> 2166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 2166

```

Val Ala Arg Asn Asp Ile Gly Thr Thr Ser Thr Arg Arg Ile Gly Ser
 1           5           10           15
Gly Arg Thr Ser Ser Thr Gly Arg Thr Val Val Ser Ser Asp Arg Thr
          20           25           30
Arg Arg Ala Ile Ala Lys Arg Leu Met Ala Arg Thr Ser Ala Met Thr
          35           40           45
Thr Ala Thr Leu Glu Glu Met Gly Arg Arg His Ser Trp Phe Arg Asp
          50           55           60
Leu Ser Ala Glu Glu Arg Ser Trp Ile Ser Ile Val Ala Arg Ser Gly
65           70           75           80
Ile Asp Gly Phe Val Gln Trp Phe Ala Asp Asp Ala Glu Pro Tyr
          85           90           95
Ser Pro Thr Asp Val Phe Asp Val Ala Pro Arg Ser Met Thr Arg Lys
          100          105          110
Ile Ser Leu His Gln Thr Val Glu Leu Val Arg Thr Thr Ile Asp Val
          115          120          125
Val Glu Ala Gln Ile Glu Thr Glu Met Pro Arg Gly Asp Arg Gln Val
          130          135          140
Leu Arg Thr Ala Ile Val His Tyr Ser Arg Glu Val Ala Phe Ala Ala
145          150          155          160
Ala Glu Val Tyr Ala Arg Ala Ala Glu Arg Arg Gly Thr Trp Asp Glu
          165          170          175
Arg Leu Glu Ser Leu Val Val Asp Ala Val Val Arg Ala Asp Ala Asp
          180          185          190
Glu Gln Leu Ile Ser Arg Ala Ser Thr Leu Gly Trp Arg Pro Gly Ile
          195          200          205
Asn Leu Cys Val Val Val Gly Arg Ala Pro Thr Thr Glu His Glu Leu
          210          215          220
His Val Leu Arg Arg Asp Gly Glu Arg Met Gln Met Thr Val Leu
225          230          235

```

<210> 2167

<211> 325

<212> DNA

<213> Homo sapiens

<400> 2167

```

accggtgcag tttgtgaggg gttggtgacg cccgatcggg aggttcacgc cgtcacggcg
60
catccacatt atccccgactg gaagatctcg ccagggttacg gacagtggtc gcgtagcgaa
120
cagatecgaca gtgtgactgt gacgcgagtc agacacttcg tcccgcggcg tcccacggcg
180
attcttcgag cggtgtctga ggtgacgttc ggggttcgctc tctgcgccgt ccgttggcga
240
agcaccgcgg cgattgtggc tgtgtcgccg gccttgctct cgacgcggtc gcgcgggctcg
300
tgcgctgac tcccacagca taccc
325

```

<210> 2168
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2168
 Thr Gly Ala Val Cys Glu Gly Leu Val Thr Pro Asp Arg Glu Val His
 1 5 10 15
 Ala Val Thr Ala His Pro His Tyr Pro Asp Trp Lys Ile Ser Pro Gly
 20 25 30
 Tyr Gly Gln Trp Ser Arg Ser Glu Gln Ile Asp Ser Val Thr Val Thr
 35 40 45
 Arg Val Arg His Phe Val Pro Arg Arg Pro Thr Ala Ile Leu Arg Ala
 50 55 60
 Val Ser Glu Val Thr Phe Gly Leu Arg Leu Cys Ala Val Arg Trp Arg
 65 70 75 80
 Ser Thr Ala Ala Ile Val Ala Val Ser Pro Ala Leu Leu Ser Thr Arg
 85 90 95
 Ser Arg Gly Ser Cys Ala Asp Leu Pro Gln His Thr
 100 105

<210> 2169
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 2169
 gaggacgcct acgtgctcat caccagggc aagatctcgg cgatcgccga cgtcctgccg
 60
 atcctggaga aggtcgtaaa ggccggcaag ccgctgctcg tcatcgccga ggacatcgac
 120
 ggggaggccc tgtccaccct cgctcgtaaat aagatccgcg gtaccttcag ctcggtggca
 180
 gtcaaggcgc ccggcttcgg tgaccgccgc aaggcaatgc tgcaggacat cgccaccctc
 240
 accggtggtc aggtcgtcgc tcccgaggtt gggctcaagc tcgaccaggt gggcctcgag
 300
 gttcagggc
 309

<210> 2170
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 2170
 Glu Asp Ala Tyr Val Leu Ile Thr Gln Gly Lys Ile Ser Ala Ile Ala
 1 5 10 15
 Asp Val Leu Pro Ile Leu Glu Lys Val Val Lys Ala Gly Lys Pro Leu
 20 25 30
 Leu Val Ile Ala Glu Asp Ile Asp Gly Glu Ala Leu Ser Thr Leu Val
 35 40 45
 Val Asn Lys Ile Arg Gly Thr Phe Ser Ser Val Ala Val Lys Ala Pro

50 55 60
 Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu
 65 70 75 80
 Thr Gly Gly Gln Val Val Ala Pro Glu Val Gly Leu Lys Leu Asp Gln
 85 90 95
 Val Gly Leu Glu Val Gln Gly
 100

<210> 2171
 <211> 518
 <212> DNA
 <213> Homo sapiens

<400> 2171
 cgcgtaatgt gtattaaggt ccttggtggc tcgcatcgcc gttatgcagc aatcgggtgat
 60
 atcatcaaag tttcagtgaa ggaagcaatt cctcgcgga aaattaaaaa aggtaatgtt
 120
 cattcagctg tggtagtgcg taccagaaaa ggtgtacgtc gtcccgatgg ttctgttatt
 180
 cgttttgatc gcaacgcagc gggtatcttg aatgcaaaca accagccagt cggtacacgt
 240
 atctttggcc ctgtaaccg tgagcttcga aatgaaaatt tcatgaagat tgtttcactg
 300
 gcgcagaag tactgtaagg aaccgaaaat ggcagcaaaa ataaaacgtg acgatgaagt
 360
 aattgttatt gccggtaaag ataaaggtaa aactgggaaa gtttctcaag ttttaactaa
 420
 cggtaaagta attattgaag gtgtaaagt tcaaaaagaaa caccaaaaac caaacctca
 480
 agcgggcgtg gaaggcggaa tcattgaaca gaatgcat
 518

<210> 2172
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2172
 Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser His Arg Arg Tyr Ala
 1 5 10 15
 Ala Ile Gly Asp Ile Ile Lys Val Ser Val Lys Glu Ala Ile Pro Arg
 20 25 30
 Gly Lys Ile Lys Lys Gly Asn Val His Ser Ala Val Val Arg Thr
 35 40 45
 Arg Lys Gly Val Arg Arg Pro Asp Gly Ser Val Ile Arg Phe Asp Arg
 50 55 60
 Asn Ala Ala Val Ile Leu Asn Ala Asn Asn Gln Pro Val Gly Thr Arg
 65 70 75 80
 Ile Phe Gly Pro Val Thr Arg Glu Leu Arg Asn Glu Asn Phe Met Lys
 85 90 95
 Ile Val Ser Leu Ala Pro Glu Val Leu
 100 105

<210> 2173
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 2173
 nntggggaag aaatgccggt gcatgcactt tgtgcagcat taggtgcagg ggtgatgcag
 60
 cgggcgctg ccttttgcgg cggggtttcg agcattcatc tggatgcagc attttcgcag
 120
 gcatttcttg tatcctcgtc atgcgtttct ccccatgcac acacattatc gcctttgcac
 180
 ccgcagggac gcatggaata cctcgtgaaa tggaagggat ggtcgcagaa gtacagcaca
 240
 tgggaaccgg aggaaaacat cctggatgct cgcttgctcg cagcctttga ggaaagggaa
 300
 agagagatgg agctctatgg ccccaaaaag cgtggacca agcccaaac ctctctctc
 360
 aaagcgagg ccaaggcaaa ggccaaaact tacgagtttc gaagtgactc agccaggggc
 420
 atccggatcc cctaccctgg ccgctcgccc caggacctgg cctccacttc ccggg
 475

<210> 2174
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 2174
 Xaa Gly Glu Glu Met Pro Val His Ala Leu Cys Ala Ala Leu Gly Ala
 1 5 10 15
 Gly Val Met Gln Arg Ala Arg Ala Phe Cys Gly Gly Val Ser Ser Ile
 20 25 30
 His Leu Val His Ala Phe Ser His Ala Phe Leu Val Ser Ser Ser Cys
 35 40 45
 Val Ser Pro His Ala His Thr Leu Ser Pro Leu His Pro Gln Gly Arg
 50 55 60
 Met Glu Tyr Leu Val Lys Trp Lys Gly Trp Ser Gln Lys Tyr Ser Thr
 65 70 75 80
 Trp Glu Pro Glu Glu Asn Ile Leu Asp Ala Arg Leu Leu Ala Ala Phe
 85 90 95
 Glu Glu Arg Glu Arg Glu Met Glu Leu Tyr Gly Pro Lys Lys Arg Gly
 100 105 110
 Pro Lys Pro Lys Thr Phe Leu Leu Lys Ala Gln Ala Lys Ala Lys Ala
 115 120 125
 Lys Thr Tyr Glu Phe Arg Ser Asp Ser Ala Arg Gly Ile Arg Ile Pro
 130 135 140
 Tyr Pro Gly Arg Ser Pro Gln Asp Leu Ala Ser Thr Ser Arg
 145 150 155

<210> 2175
 <211> 462
 <212> DNA
 <213> Homo sapiens

<400> 2175

cgcgacaccc tctttggtgg ggccttccct tctccgaatt cgcgaaacct ccagactctg
 60
 gccagaggagg ttgtcgagcg tggagccgat atcggcattg ccactgatgg tgacgcagac
 120
 cgctcggtta tcattgatga ccaggggcat ttcttgcata ccaaccagat cctcgattg
 180
 ctgtacacct accttctgga ggacaaggga tggcagggtgc cctgcgtgcg taacctcgcg
 240
 acgaccacc tgcttgaccg tgtcgccgag gccacgggc agacctgtta cgaggtaccg
 300
 gtcggattta agtgggtgtc gtccaagatg gccgagacca acgccgtcat cggtggtgag
 360
 tcctccggtg gtttgaccgt ccaggggcat attgcaggca aggatggtgt ctatgctggc
 420
 accctgctgg tggaaatgat cgccaagcgg ggtaagaagc tt
 462

<210> 2176

<211> 154

<212> PRT

<213> Homo sapiens

<400> 2176

Arg	Asp	Thr	Leu	Phe	Gly	Gly	Arg	Leu	Pro	Ser	Pro	Asn	Ser	Arg	Thr
1				5					10					15	
Leu	Gln	Thr	Leu	Ala	Gln	Glu	Val	Val	Glu	Arg	Gly	Ala	Asp	Ile	Gly
			20					25					30		
Ile	Ala	Thr	Asp	Gly	Asp	Ala	Asp	Arg	Leu	Gly	Ile	Ile	Asp	Asp	Gln
		35					40					45			
Gly	His	Phe	Leu	His	Pro	Asn	Gln	Ile	Leu	Val	Leu	Leu	Tyr	Thr	Tyr
	50					55					60				
Leu	Leu	Glu	Asp	Lys	Gly	Trp	Gln	Val	Pro	Cys	Val	Arg	Asn	Leu	Ala
65				70					75					80	
Thr	Thr	His	Leu	Leu	Asp	Arg	Val	Ala	Glu	Ala	His	Gly	Gln	Thr	Cys
			85					90						95	
Tyr	Glu	Val	Pro	Val	Gly	Phe	Lys	Trp	Val	Ser	Ser	Lys	Met	Ala	Glu
		100						105					110		
Thr	Asn	Ala	Val	Ile	Gly	Gly	Glu	Ser	Ser	Gly	Gly	Leu	Thr	Val	Gln
	115						120					125			
Gly	His	Ile	Ala	Gly	Lys	Asp	Gly	Val	Tyr	Ala	Gly	Thr	Leu	Leu	Val
	130					135					140				
Glu	Met	Ile	Ala	Lys	Arg	Gly	Lys	Lys	Leu						
145						150									

<210> 2177

<211> 478

<212> DNA

<213> Homo sapiens

<400> 2177

ctcgagaatc atgacggcga cgacgtgact atctccaccc gtgtgcctcg tgacggcggg
 60

accttggaact cgattgtcgg cgtgctggcc ggggcatcct ggtatcagcg ggagatccac
 120
 gacttttttg gtgtgaggtt tgtcggccct ggggcagatg atcgtgccct ccttgtccac
 180
 gatgcaccga aaccgccccct gcgcaaggaa gctgtgttgg cgcagcgagc tgacaccgtg
 240
 tggccgggtg cggtgacca ggctggctcg aagtcgcga gtcgacgtct gccggtcggc
 300
 gttcctgacc ctgagacgtg gcggcgatc aaagacggcg aggatattcc ggatgccgag
 360
 gtcacgcgg ccatgtctgg ccggcgcccc cgatcagctg cccgtcgaat ggcaagcacg
 420
 gcgtcaggca ggcaggcatg agacattcga ctatcaacct tgacgtcgac gcgtgcac
 478

<210> 2178

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2178

Leu	Glu	Asn	His	Asp	Gly	Asp	Asp	Val	Thr	Ile	Ser	Thr	Arg	Val	Pro
1			5					10					15		
Arg	Asp	Gly	Gly	Thr	Leu	Asp	Ser	Ile	Val	Gly	Val	Leu	Ala	Gly	Ala
	20						25					30			
Ser	Trp	Tyr	Gln	Arg	Glu	Ile	His	Asp	Phe	Phe	Gly	Val	Arg	Phe	Val
	35					40					45				
Gly	Pro	Gly	Ala	Asp	Asp	Arg	Ala	Leu	Leu	Val	His	Asp	Ala	Pro	Lys
	50				55					60					
Pro	Pro	Leu	Arg	Lys	Glu	Ala	Val	Leu	Ala	Gln	Arg	Ala	Asp	Thr	Val
65			70					75					80		
Trp	Pro	Gly	Ala	Ala	Asp	Gln	Ala	Gly	Ser	Lys	Ser	Ala	Ser	Arg	Arg
		85					90					95			
Leu	Pro	Val	Gly	Val	Pro	Asp	Pro	Glu	Thr	Trp	Arg	Arg	Ile	Lys	Asp
	100						105					110			
Gly	Glu	Asp	Ile	Pro	Asp	Ala	Glu	Val	Ile	Ala	Ala	Met	Ser	Gly	Arg
	115					120					125				
Arg	Pro	Arg	Ser	Ala	Ala	Arg	Arg	Met	Ala	Ser	Thr	Ala	Ser	Gly	Arg
	130					135					140				
Gln	Ala														
145															

<210> 2179

<211> 296

<212> DNA

<213> Homo sapiens

<400> 2179

gtgcacttcc gagtggacgt cgagcgtcgc attaacgggg ccggcgcggt gggcgcacac
 60
 aagacgtcga tgctgcagga tctggacngc gaccgcgcga tggagatcga cccgctcgtc
 120
 tccgctcgttc aggagatggg acgcctggcc aacgtgccga cgcccacgct cgatgtcgtg
 180

ctcccactga tcaagcaacg tgaattcatg acgaagccgg atgccgtggc ggccgcgcag
 240
 gaacgtctgg ctaaagcggc ataaaccagc cgccgaaacc agcggcataa cgcggg
 296

<210> 2180
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 2180
 Val His Phe Arg Val Asp Val Glu Arg Arg Ile Asn Gly Ala Gly Ala
 1 5 10 15
 Val Gly Ala His Lys Thr Ser Met Leu Gln Asp Leu Asp Xaa Asp Arg
 20 25 30
 Ala Met Glu Ile Asp Pro Leu Val Ser Val Val Gln Glu Met Gly Arg
 35 40 45
 Leu Ala Asn Val Pro Thr Pro Thr Leu Asp Val Val Leu Pro Leu Ile
 50 55 60
 Lys Gln Arg Glu Phe Met Thr Lys Pro Asp Ala Val Ala Ala Ala Gln
 65 70 75 80
 Glu Arg Leu Ala Lys Ala Ala
 85

<210> 2181
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 2181
 ngcgcgcgg gatggatcat agtctggctc gatgcatcac gtgcgcgcat gcgcgcgctg
 60
 tcgattcccg acggcatgat cgcggcactc gaccgtaccg gcaaggcgca aacgcacctc
 120
 acgctggcat cgccggaagc ggggtgtcgtc agcgaactga acgtgcgcga cgggtgcgatg
 180
 gtcgcgcggg ggcagacgct cgccaagatt tcgggcctct cgaagctctg gctgatcgtc
 240
 gagattccgg aagcgctcgc gctcgatgcg cgtccgggca tgaccgtcga cgcgacgttc
 300
 tcgggcgatc cgacgcagca tttcaccggg cgtatccgcg agatcctgcc gggcatcacc
 360
 accagtagcc gcacgcttca ggcgcgc
 387

<210> 2182
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 2182
 Xaa Ala Pro Gly Trp Ile Ile Val Trp Leu Asp Ala Ser Arg Ala Arg
 1 5 10 15
 Met Arg Ala Leu Ser Ile Pro Asp Gly Met Ile Ala Ala Leu Asp Arg

100

<210> 2185
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 2185
 ngaatatcca tgcagcagct cgtcgacaat tttgacgggtg ccatccctga cgatcttgac
 60
 tctcttgatga ccctgcccgg agtcgggtcgt aagaccgcca atgttggtttt aggtaatgcc
 120
 ttcggcatcc ccggaatcac cccggacacc cacgtcatgc gggatatctcg acgtctgggc
 180
 tggaccgatg cgactacccc cgccaagggtg gaaaccgacc tggttgagct ttttgacccg
 240
 tctgaatggg tgatgttgtg tcaccgcctc atctggcacg ggccggcggcg ctgtcactcg
 300
 cggcgctcctg cctgcgggggt atgcccgggt gccgagtggg gcccgctcctt cggggaaggc
 360
 ccaacggatc ccgaggaggc cgccacgtta gtccgggagc cgcgtcgatg agggggatga
 420
 acgttttcgg cgcgggtgatg gccgccttga tgtttgctgg ctgcggggga gatgcgggca
 480
 tagctcatca gcgtgaaaat gccggaatac cggggtgctc gcatttgccg tcggggccga
 540
 ttgcgaaaag ttccgggccc gccacagagg gccggcccat gcccgatcac ggcttgcaat
 600
 gccttggtga ggggcccagc atctccatgt ctcgggcgac atcgaggggc gtgaccgtcg
 660
 tgacgatctg ggcgtcgtgg tgcgaccat gtcgtagtga ggctccgctc attgcgaacg
 720
 cgt
 723

<210> 2186
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 2186
 Xaa Ile Ser Met Gln Gln Leu Val Asp Asn Phe Asp Gly Ala Ile Pro
 1 5 10 15
 Asp Asp Leu Asp Ser Leu Val Thr Leu Pro Gly Val Gly Arg Lys Thr
 20 25 30
 Ala Asn Val Val Leu Gly Asn Ala Phe Gly Ile Pro Gly Ile Thr Pro
 35 40 45
 Asp Thr His Val Met Arg Val Ser Arg Arg Leu Gly Trp Thr Asp Ala
 50 55 60
 Thr Thr Pro Ala Lys Val Glu Thr Asp Leu Ala Glu Leu Phe Asp Pro
 65 70 75 80
 Ser Glu Trp Val Met Leu Cys His Arg Leu Ile Trp His Gly Arg Arg
 85 90 95
 Arg Cys His Ser Arg Arg Pro Ala Cys Gly Val Cys Pro Val Ala Glu

atcgaggcaa tctgtgctg gttagacgcc aacggacgcg atctgccgtg gcgccgaccc
 300
 ggcacctccg cgtggggcgt gcttggttagc gaggtcatga gccaacagac cccgatgtcc
 360
 cgggtgatcg ggccgtggca cgagtggatg aaccgctggc ccaccctga tgatttggcg
 420
 gaggaggact ctggggaagc gggtgcccgc tgggggcgcc tgggttaccg gcgtcggggc
 480
 ttacgcctgc attcctgtgc cgtcacgac gccaccgagc acgacggggg tgtgcccac
 540
 agtgacgacg agctcgtcgc cctcccgggt attggcgact acaccgagc gcgagtcgtc
 600
 tcttttgctg ttggcgccgc cgccacagtg cttgacacca atgtacgtcg cctcatcgct
 660
 agagcagagt ctgggatcgc aaactgtcca acctcgggtga cgagggtga gcgggtagtc
 720
 gccgacgcgt tggttcccga cgaagacgtc cgagcggcca agtggggcgt ggcgtcgatg
 780
 gaattggggg cactggtatg cacggcgccg tctccgcagt gtgaggtctg cccgatccgg
 840
 gatggctgca ggtgggtgat cgacggtagg ccggacaatg ccccgcccg tcgaggacag
 900
 ccatggaagg gcacggatcg ccagtgccgc ggcgtgatta tggacgtggt gcgcaacagc
 960
 cctcacgggg tgaagggtcca gatggctctt tccgcctggc ccgagctcga tcaggcatca
 1020
 aggtgcctgg aatccttact cgatgacggt ttagtgcacc gacgaggtaa ccttattagc
 1080
 ctgtgacctg agaaattctt ggccccgacc acccaaacag accgagtcca gcagtgatgc
 1140
 cgctgggtta tccttagagg cggtcctcaa attggatcag ccaaaccacg tcaccgatca
 1200
 agacaccatg agcacaacac ccaaacagcc gcgcacggcg acagctgcc gacgccgaca
 1260
 cattgtcgac catctgcgtt ctttggggca ctccgagtc atcggagatc tttaccaact
 1320
 gttaggtgtc tctacatcga cgattcgccg cgatgtcgat gccctctcgg atgaatcaa
 1380
 gatctggaag atttccgggg gagacgtcat ga
 1412

<210> 2190

<211> 292

<212> PRT

<213> Homo sapiens

<400> 2190

Ser	Val	Pro	Asp	Thr	Gly	Leu	Thr	Ser	Gln	Val	Ile	Glu	Ala	Ile	Cys
1				5				10					15		
Ala	Trp	Phe	Asp	Ala	Asn	Gly	Arg	Asp	Leu	Pro	Trp	Arg	Arg	Pro	Gly
			20				25					30			
Thr	Ser	Ala	Trp	Gly	Val	Leu	Val	Ser	Glu	Val	Met	Ser	Gln	Gln	Thr
		35				40					45				
Pro	Met	Ser	Arg	Val	Ile	Gly	Pro	Trp	His	Glu	Trp	Met	Asn	Arg	Trp

50	55	60
Pro Thr Pro Asp Asp Leu Ala Glu Glu Asp Ser Gly Glu Ala Val Ala		
65	70	75
Ala Trp Gly Arg Leu Gly Tyr Pro Arg Arg Ala Leu Arg Leu His Ser		80
	85	90
Cys Ala Val Thr Ile Ala Thr Glu His Asp Gly Gly Val Pro Asn Ser		95
	100	105
Asp Asp Glu Leu Val Ala Leu Pro Gly Ile Gly Asp Tyr Thr Ala Ser		110
	115	120
Ala Val Val Ser Phe Ala Phe Gly Gly Arg Ala Thr Val Leu Asp Thr		125
	130	135
Asn Val Arg Arg Leu Ile Ala Arg Ala Glu Ser Gly Ile Ala Asn Cys		140
145	150	155
Pro Thr Ser Val Thr Arg Ala Glu Arg Val Val Ala Asp Ala Leu Val		160
	165	170
Pro Asp Glu Asp Val Arg Ala Ala Lys Trp Ala Val Ala Ser Met Glu		175
	180	185
Leu Gly Ala Leu Val Cys Thr Ala Arg Ser Pro Gln Cys Glu Val Cys		190
	195	200
Pro Ile Arg Asp Gly Cys Arg Trp Val Ile Asp Gly Arg Pro Asp Asn		205
	210	215
Ala Pro Ala Arg Arg Gly Gln Pro Trp Lys Gly Thr Asp Arg Gln Cys		220
225	230	235
Arg Gly Val Ile Met Asp Val Val Arg Asn Ser Pro His Gly Val Lys		240
	245	250
Val Gln Met Ala Leu Ser Ala Trp Pro Glu Leu Asp Gln Ala Ser Arg		255
	260	265
Cys Leu Glu Ser Leu Leu Asp Asp Gly Leu Val His Arg Arg Gly Asn		270
	275	280
Leu Ile Ser Leu		285
290		

<210> 2191

<211> 502

<212> DNA

<213> Homo sapiens

<400> 2191

```

nnacgcgtcg agaatctcta ctccctgcccg aacaacgtcc ggcttcgtca ggctcacgat
60
gactcccttg acgacgacac catttccggg ggtagcccac attggtgctg cctcatggac
120
tacattgaat cccgttcaat cctgaacggc gttcaggacg tctccagtct cggaaggacc
180
agagtattgc tgaatctagc cgacatgacc gaacgcggcc tgagggggga gtccattacc
240
cgcgaggagg ccctcgagat tcttcgcagc agtgatgatg agctcatgtc aatcatcgcc
300
gccgccggaa aagtgcgtcg ccactttttc gataaccggg ttcgcctcaa ctacctggtc
360
aacctcaagt ccggcctgtg tcccgaagac tgctcctatt gctcgcagcg tctgggatcg
420
cgtgccgaga tcacgaaata ctccctgggccc gatccgcaga aggtacacga cgccgtcgag
480

```

gctgggattg ccggtggtgc ac
502

<210> 2192
<211> 104
<212> PRT
<213> Homo sapiens

<400> 2192
Leu Asn Leu Ala Asp Met Thr Glu Arg Gly Leu Arg Gly Glu Ser Ile
1 5 10 15
Thr Arg Glu Glu Ala Leu Glu Ile Leu Arg Ser Ser Asp Asp Glu Leu
20 25 30
Met Ser Ile Ile Ala Ala Ala Gly Lys Val Arg Arg His Phe Phe Asp
35 40 45
Asn Arg Val Arg Leu Asn Tyr Leu Val Asn Leu Lys Ser Gly Leu Cys
50 55 60
Pro Glu Asp Cys Ser Tyr Cys Ser Gln Arg Leu Gly Ser Arg Ala Glu
65 70 75 80
Ile Thr Lys Tyr Ser Trp Ala Asp Pro Gln Lys Val His Asp Ala Val
85 90 95
Glu Ala Gly Ile Ala Gly Gly Ala
100

<210> 2193
<211> 321
<212> DNA
<213> Homo sapiens

<400> 2193
ccatggggaa tgcagagcac ggacagtcac acagactgtc ctctctggcc ttctggaccc
60
aacatactcc tcttgccaac tgggtattac tggaccttac tgggccttac tggacccaac
120
atactcctct tgccaactgg ggatttaaaa attttaaaag cccctttatc tccctccaca
180
agtcattgtac tgccaacagg gacacactgt tttctttgga aaccctgctg tgtgcccaga
240
cagaggcccc actgccctgg gacagctccc ttgcctanag gggaaggagg gtgtgtgtgc
300
tgtgtgtgtt taggttgggg a
321

<210> 2194
<211> 106
<212> PRT
<213> Homo sapiens

<400> 2194
Met Gly Asn Ala Glu His Gly Gln Ser His Arg Leu Ser Ser Leu Ala
1 5 10 15
Phe Trp Thr Gln His Thr Pro Leu Ala Asn Trp Val Leu Leu Asp Leu
20 25 30
Thr Gly Pro Tyr Trp Thr Gln His Thr Pro Leu Ala Asn Trp Gly Phe

			35					40						45		
Lys	Asn	Phe	Lys	Ser	Pro	Phe	Ile	Ser	Leu	His	Lys	Ser	Cys	Thr	Ala	
	50					55					60					
Asn	Arg	Asp	Thr	Leu	Phe	Ser	Leu	Glu	Thr	Leu	Leu	Cys	Ala	Gln	Thr	
65					70					75					80	
Glu	Val	Pro	Leu	Pro	Trp	Asp	Ser	Ser	Leu	Ala	Xaa	Arg	Gly	Arg	Arg	
				85					90					95		
Val	Cys	Val	Leu	Cys	Val	Phe	Arg	Leu	Gly							
			100					105								

```
<210> 2195
<211> 504
<212> DNA
<213> Homo sapiens
```

```

<400> 2195
naccggtctc cctacatcaa tgcccaccgc gattgcacct ttgttgtcat gtcacctggc
60
gacggtgtgg cacaccccaa ctttggcaat atcgccacg acctggtgct gttgcacagc
120
ctgggtgtgc gtctggtact ggtccacggt tcgcgcccgc agatcgacag ccgccttgag
180
gcacgaggcc tggtgccgta ttaccacaag ggcattgcgtg tcaccgatgc atcaacgctc
240
gaatgcgtga tcgatgctgt cgggcaactg cgcattgcga ttgaagcgcg cttgtcgatg
300
gacatggcgt cttcgccaat gcagggttcg cgtctgcgcg tagccagcgg caacctggtc
360
actgcgcggc cgatcggcgt gctcgacggt gtggattttc accataccgg cgaagtgcgc
420
cgggtggacc gcaagggcat caaccgcctg ctcgatgagc gctcgattgt gctgctgtcg
480
cccttgggtt actcgccac cggc
504

```

```
<210> 2196
<211> 168
<212> PRT
<213> Homo sapiens
```

<400> 2196																
Xaa	Ala	Ser	Pro	Tyr	Ile	Asn	Ala	His	Arg	Asp	Cys	Thr	Phe	Val	Val	
1				5					10					15		
Met	Leu	Pro	Gly	Asp	Gly	Val	Ala	His	Pro	Asn	Phe	Gly	Asn	Ile	Val	
			20					25					30			
His	Asp	Leu	Val	Leu	Leu	His	Ser	Leu	Gly	Val	Arg	Leu	Val	Leu	Val	
		35					40					45				
His	Gly	Ser	Arg	Pro	Gln	Ile	Asp	Ser	Arg	Leu	Glu	Ala	Arg	Gly	Leu	
	50					55					60					
Val	Pro	Tyr	Tyr	His	Lys	Gly	Met	Arg	Val	Thr	Asp	Ala	Ser	Thr	Leu	
65					70					75					80	
Glu	Cys	Val	Ile	Asp	Ala	Val	Gly	Gln	Leu	Arg	Ile	Ala	Ile	Glu	Ala	
				85					90					95		
Arg	Leu	Ser	Met	Asp	Met	Ala	Ser	Ser	Pro	Met	Gln	Gly	Ser	Arg	Leu	

100	105	110
Arg Val Ala Ser Gly Asn Leu Val Thr Ala Arg Pro Ile Gly Val Leu		
115	120	125
Asp Gly Val Asp Phe His His Thr Gly Glu Val Arg Arg Val Asp Arg		
130	135	140
Lys Gly Ile Asn Arg Leu Leu Asp Glu Arg Ser Ile Val Leu Leu Ser		
145	150	155
Pro Leu Gly Tyr Ser Pro Thr Gly		160
165		

<210> 2197

<211> 351

<212> DNA

<213> Homo sapiens

<400> 2197

```

acaagtccgt cgacgatctg ctttccggag gcgggcccag gaatggtaat gaaacccgag
60
ttatggggcc ctgcgctcga cgagattgcc gcgggaaaac gtgccggagg ggcgtgaacag
120
ttagattccg cagtgcagca catccacggt gctactcacg ataaactgtc cgggtgctgtt
180
ccgaaacgct acgatggctg ggatgtcttg gcaggcgagg acccgaatgc accgttgctg
240
cttgtgcta gccggctgg tgcagtgttt agtcaaaata aggcacaagc ctggtccaat
300
gaagaccaca ttgttttgc ctgtgggcgc tatgaaggtat ttgatcaacg c
351

```

<210> 2198

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2198

Thr Ser Pro Ser Thr Ile Arg Phe Pro Glu Ala Gly Pro Gly Met Val		
1	5	10
Met Lys Pro Glu Leu Trp Gly Pro Ala Leu Asp Glu Ile Ala Ala Gly		15
20	25	30
Lys Arg Ala Gly Gly Ala Glu Gln Leu Asp Ser Ala Val Gln His Ile		
35	40	45
His Gly Ala Thr His Asp Lys Leu Ser Gly Ala Val Pro Lys Arg Tyr		
50	55	60
Asp Gly Arg Asp Val Leu Ala Gly Glu Asp Pro Asn Ala Pro Leu Leu		
65	70	75
Leu Val Pro Ser Pro Ala Gly Ala Val Phe Ser Gln Asn Lys Ala Gln		80
85	90	95
Ala Trp Ser Asn Glu Asp His Ile Val Phe Ala Cys Gly Arg Tyr Glu		
100	105	110
Gly Ile Asp Gln Arg		
115		

<210> 2199

<211> 457

<212> DNA

<213> Homo sapiens

<400> 2199

agacgccggc cgccaagatc tgcattcccta ggccacgcta agaccctggg gaagagcgca
 60
 ggagcccggg agaagggctg gaaggagggg actggacgtg cggagaattc cccctaaaa
 120
 ggcagaagcc cccgccccca cctccgagc tccgttcggg cagagcgcct gcctgcctgc
 180
 cgttgctggg ggcgcccacc tcgcccagcc atgccaggcc cggccaccga cgcggggaag
 240
 atccctttct gcgacgcaa ggaagaaatc cgtgccgggc tcgaaagctc tgagggcggc
 300
 ggcggcccg agaggccagg cgcgcgcggg cagcggcaga acatcgtctg gaggaatgtc
 360
 gtctgatga gcttgctcca cttggggggc gtgtactccc tgggtgctcat ccccaaagcc
 420
 aagccactca ctctgctctg gggtaagtcc cgccggc
 457

<210> 2200

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2200

Arg	Arg	Arg	Pro	Pro	Arg	Ser	Ala	Ser	Leu	Gly	His	Ala	Lys	Thr	Leu
1				5					10					15	
Gly	Lys	Ser	Ala	Gly	Ala	Arg	Glu	Lys	Gly	Trp	Lys	Glu	Gly	Thr	Gly
			20					25					30		
Arg	Ala	Glu	Asn	Ser	Pro	Leu	Lys	Gly	Arg	Ser	Pro	Arg	Pro	His	Pro
			35				40					45			
Pro	Ser	Ser	Val	Arg	Ala	Glu	Arg	Leu	Pro	Ala	Cys	Arg	Cys	Trp	Gly
			50				55				60				
Arg	Pro	Pro	Arg	Pro	Ala	Met	Pro	Gly	Pro	Ala	Thr	Asp	Ala	Gly	Lys
65					70				75					80	
Ile	Pro	Phe	Cys	Asp	Ala	Lys	Glu	Glu	Ile	Arg	Ala	Gly	Leu	Glu	Ser
				85				90						95	
Ser	Glu	Gly	Gly	Gly	Gly	Pro	Glu	Arg	Pro	Gly	Ala	Arg	Gly	Gln	Arg
			100				105						110		
Gln	Asn	Ile	Val	Trp	Arg	Asn	Val	Val	Leu	Met	Ser	Leu	Leu	His	Leu
			115				120					125			
Gly	Ala	Val	Tyr	Ser	Leu	Val	Leu	Ile	Pro	Lys	Ala	Lys	Pro	Leu	Thr
			130				135					140			
Leu	Leu	Trp	Gly	Lys	Ser	Arg	Arg								
145					150										

<210> 2201

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2201

agtactgcga tggacagcta tgctcgtggat ggtgggtcgca aattacatgt ttgtggtaac
 60
 aaccctgatt gcgatgggta tgaagtcgaa gaaggcgaat tcaagatcaa gggttatgat
 120
 ggtccgacta tcccatgcga taaatgtgat ggtgagatgc agcttaaaac gggtcgtttt
 180
 ggtccatatt tcgcatgtac tagctgtgac aatactcgta aggtactcaa gagtgggtcaa
 240
 cctgctccgc cacgtgtaga cccaatcaaa atggagcatc tacgttcaac gaagcatgat
 300
 gattttcttcg tcttacgtga gggcgctgct ggttta
 336

<210> 2202

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2202

Ser	Thr	Ala	Met	Asp	Ser	Tyr	Val	Val	Asp	Gly	Gly	Arg	Lys	Leu	His
1				5					10					15	
Val	Cys	Gly	Asn	Asn	Pro	Asp	Cys	Asp	Gly	Tyr	Glu	Val	Glu	Glu	Gly
			20					25					30		
Glu	Phe	Lys	Ile	Lys	Gly	Tyr	Asp	Gly	Pro	Thr	Ile	Pro	Cys	Asp	Lys
		35					40					45			
Cys	Asp	Gly	Glu	Met	Gln	Leu	Lys	Thr	Gly	Arg	Phe	Gly	Pro	Tyr	Phe
	50					55				60					
Ala	Cys	Thr	Ser	Cys	Asp	Asn	Thr	Arg	Lys	Val	Leu	Lys	Ser	Gly	Gln
65					70				75					80	
Pro	Ala	Pro	Pro	Arg	Val	Asp	Pro	Ile	Lys	Met	Glu	His	Leu	Arg	Ser
				85				90						95	
Thr	Lys	His	Asp	Asp	Phe	Phe	Val	Leu	Arg	Glu	Gly	Ala	Ala	Gly	Leu
			100					105						110	

<210> 2203

<211> 273

<212> DNA

<213> Homo sapiens

<400> 2203

ctcgagagat gcagtcaccag ccgggggtggg aagctgtgca gacagccccg gatctgggac
 60
 gtgatggaaa actcaacaga ctgggttcaga tcttggtccc gagcccagag gcaccggggg
 120
 cccccagggc tggtttctccc tggccacacc agtaccacac ttccaaatgc cctgtaggtg
 180
 accaccagggc cacacaggcc cgtctgaggg gccacaggct gtgcaccatg ggacgcaggg
 240
 ctgtccctgc ctccctccga tgtcctgatg gtg
 273

<210> 2204

<211> 88

<212> PRT

<213> Homo sapiens

<400> 2204

```

Met Gln Ser Gln Pro Gly Trp Glu Ala Val Gln Thr Ala Pro Asp Leu
 1             5             10             15
Gly Arg Asp Gly Lys Leu Asn Arg Leu Val Gln Ile Leu Ala Arg Ser
          20          25          30
Pro Glu Ala Pro Gly Thr Pro Arg Ala Val Ser Pro Trp Pro His Gln
          35          40          45
Tyr Pro Thr Ser Lys Cys Pro Val Gly Asp His Gln Ala Thr Gln Ala
          50          55          60
Arg Leu Arg Gly His Arg Leu Cys Thr Met Gly Arg Arg Pro Val Pro
65          70          75          80
Ala Ser Leu Arg Cys Pro Asp Gly
          85

```

<210> 2205

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2205

```

gnnnnnnggng nnnnactggg gtgcatgggt aaaatcctgc aagctactgg gttgccacag
60
catctgtccc actttgtggt ctgcaaatac agcttctggg atcaacagga gccggtgatt
120
gtcgtcctcg aagtggacac ctctcctct tccgtcagca aggagccgca ctgcatgggt
180
gtctttgate attgcaatga gttttctggt aacatcacccg aagactttat cgagcatctt
240
tccgaaggag cattggcaat tgaagtatat ggacataaaa taaacgatcc ccggaaaaac
300
cccgccctgt gggatttggg aatcatccaa gcaaagacac gtagtcttcg ggacagatgg
360
agtgaagtgc ccaggaaatt ggaattc
387

```

<210> 2206

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2206

```

Xaa Xaa Gly Xaa Xaa Leu Val Cys Met Val Lys Ile Leu Gln Ala Thr
 1             5             10             15
Gly Leu Pro Gln His Leu Ser His Phe Val Phe Cys Lys Tyr Ser Phe
          20          25          30
Trp Asp Gln Gln Glu Pro Val Ile Val Ala Pro Glu Val Asp Thr Ser
          35          40          45
Ser Ser Ser Val Ser Lys Glu Pro His Cys Met Val Val Phe Asp His
          50          55          60
Cys Asn Glu Phe Ser Val Asn Ile Thr Glu Asp Phe Ile Glu His Leu
65          70          75          80
Ser Glu Gly Ala Leu Ala Ile Glu Val Tyr Gly His Lys Ile Asn Asp

```

[illegible]

```
<210> 2207
<211> 667
<212> DNA
<213> Homo sapiens
```

```

<400> 2207
atctccaacc ccgagaccct ctccaatata gccggcttcg agggctacat cgacctgggc
60
cgcgagctct ccagcctgca ctactgctc tgggaggccg tcagccagct ggagcagagc
120
atagtatcca aactgggacc cctgcctcgg atcctgaggg acgtccacac agcactgagc
180
accccaggta gcgggcagct cccagggacc aatgacctgg cctccacacc gggctctggc
240
agcagcagca tctcagctgg gctgcagaag atggtgattg agaacgatct ttccggctcg
300
atagatttca cccggttacc gtctccaacc cccgaaaaca aggacttggt ttttgtcaca
360
aggtcctccg gggtcagacc ctcacctgcc cgcagctcga gttactcgga agccaacgag
420
cctgatcttc agatggccaa cgggtggcaag agcctctcca tgggtggacct ccaggacgcc
480
cgcacgctgg atggggaggc aggctccccg gcgggccccg acgtcctccc cacagatggg
540
caggccgctg cagctcagct ggtggccggg tggccggccc gggcaacccc agtgaacctg
600
gcagggctgg ccacggtgcg gcgggcaggc cagacaccaa ccacaccagg cacctccgag
660
ggcgcgcg
667

```

```
<210> 2208
<211> 222
<212> PRT
<213> Homo sapiens
```

```

<400> 2208
Ile Ser Asn Pro Glu Thr Leu Ser Asn Thr Ala Gly Phe Glu Gly Tyr
 1             5             10             15
Ile Asp Leu Gly Arg Glu Leu Ser Ser Leu His Ser Leu Leu Trp Glu
          20             25             30
Ala Val Ser Gln Leu Glu Gln Ser Ile Val Ser Lys Leu Gly Pro Leu
          35             40             45
Pro Arg Ile Leu Arg Asp Val His Thr Ala Leu Ser Thr Pro Gly Ser
          50             55             60
Gly Gln Leu Pro Gly Thr Asn Asp Leu Ala Ser Thr Pro Gly Ser Gly

```

```

65          70          75          80
Ser Ser Ser Ile Ser Ala Gly Leu Gln Lys Met Val Ile Glu Asn Asp
          85          90          95
Leu Ser Gly Leu Ile Asp Phe Thr Arg Leu Pro Ser Pro Thr Pro Glu
          100          105          110
Asn Lys Asp Leu Phe Phe Val Thr Arg Ser Ser Gly Val Gln Pro Ser
          115          120          125
Pro Ala Arg Ser Ser Ser Tyr Ser Glu Ala Asn Glu Pro Asp Leu Gln
          130          135          140
Met Ala Asn Gly Gly Lys Ser Leu Ser Met Val Asp Leu Gln Asp Ala
145          150          155          160
Arg Thr Leu Asp Gly Glu Ala Gly Ser Pro Ala Gly Pro Asp Val Leu
          165          170          175
Pro Thr Asp Gly Gln Ala Ala Ala Ala Gln Leu Val Ala Gly Trp Pro
          180          185          190
Ala Arg Ala Thr Pro Val Asn Leu Ala Gly Leu Ala Thr Val Arg Arg
          195          200          205
Ala Gly Gln Thr Pro Thr Thr Pro Gly Thr Ser Glu Gly Ala
          210          215          220

```

<210> 2209

<211> 353

<212> DNA

<213> Homo sapiens

<400> 2209

```

ngggaagttg gtactagcct cccaaagcca ctctcctgag tgacattgag agcatcctat
60
agagaaggcc atgagagaga tagcactggg acagatgggtg tcagcagagg ggactccaga
120
ccacagcaga agtgaccaag ctgtagcttc cttagatggc cccaaggggtg ggaggcttca
180
cacagcagag cctgggtctg gaggcacctt ggggatgttt ttccccatta ggcccctgag
240
ctctatggaa gcacttaact gcctgttccc cgcttattct gtgtttaaac caaggaaaca
300
acatgcctgg ggtctgaaat cctggattca aatcctgact gtgttgtgtg ctt
353

```

<210> 2210

<211> 94

<212> PRT

<213> Homo sapiens

<400> 2210

```

Met Arg Glu Ile Ala Leu Gly Gln Met Val Ser Ala Glu Gly Thr Pro
1          5          10          15
Asp His Ser Arg Ser Asp Gln Ala Val Ala Ser Leu Asp Gly Pro Lys
          20          25          30
Gly Gly Arg Leu His Thr Ala Glu Pro Gly Ser Gly Gly Thr Leu Gly
          35          40          45
Met Phe Phe Pro Ile Arg Pro Leu Ser Ser Met Glu Ala Leu Asn Cys
          50          55          60
Leu Phe Pro Ala Tyr Ser Val Phe Lys Pro Arg Lys Gln His Ala Trp

```

65 70 75
Gly Leu Lys Ser Trp Ile Gln Ile Leu Thr Val Leu Cys Ala
85 90

```
<210> 2211
<211> 493
<212> DNA
<213> Homo sapiens
```

```

<400> 2211
ctgaccacat ctccgacgat cctagacctc tgttctgcat ctcggaacacc accgactgct
60
cactgtaccc tgggactgca cagagggaaa cgattaccaa acccagagac ggggaccgga
120
aggaaggagg ggaaggggat ggatccatgt actttgggggt tggagaaatg ggggacagca
180
agtctcctca acccaaatac agccccctg ggaggtcctt gcccgtctc tgtggatagt
240
gagcccagct gcaagggcgg cctgccaggg acaaaccac caaaaggaaa gatgttgtag
300
aaccaaagag aggctccctg aaagaggcgt ctcccggggc ctccaagccc gggagcgccc
360
ggcggacagg gggcagtggc caagtctgtg cggaccctga ccgcctcaga gaacgagagc
420
atgcgcaaag tcatgcccac caccaagtcc agcagaggcg ccggctggag gcgaccagag
480
ctgtcatccc ggg
493

```

```
<210> 2212
<211> 126
<212> PRT
<213> Homo sapiens
```

```

<400> 2212
Met Gly Met Thr Leu Arg Met Leu Ser Phe Ser Glu Ala Val Arg Val
  1           5           10           15
Arg Thr Asp Leu Ala Thr Ala Pro Cys Pro Pro Gly Ala Pro Gly Leu
          20           25           30
Gly Gly Pro Gly Arg Arg Leu Phe Gln Gly Ala Ser Leu Trp Phe Tyr
          35           40           45
Asn Ile Phe Pro Phe Gly Gly Phe Val Pro Gly Arg Pro Pro Leu Gln
          50           55           60
Leu Gly Ser Leu Ser Thr Glu Thr Gly Gln Glu Pro Pro Arg Gly Ala
65           70           75           80
Val Phe Gly Leu Arg Arg Leu Ala Val Pro His Phe Ser Asn Pro Lys
          85           90           95
Val His Gly Ser Ile Pro Phe Pro Ser Phe Leu Pro Val Pro Val Ser
          100          105          110
Gly Phe Gly Asn Arg Phe Pro Leu Cys Ser Pro Arg Val Gln
          115          120          125

```

<210> 2213
<211> 327

<212> DNA

<213> Homo sapiens

<400> 2213

acgcgtccga ccggcagttc cggcagctgc gggaaagctg cgatgcgctc gccgagcatt
 60
 gccggtgctt cgacacactg gggtatatcg cctcaaagc acaggtctac gaaggttctg
 120
 acggaaggcc cggccaatcc gatcgcggcc tcggcgctgc gcatcatccg ggcgcgctg
 180
 tcgcagctct ggggcacgtc gctgctccgc aacggacggg cggaacagag tgtggtggag
 240
 atcgcccggg tggtcgacgc gatcacgtca cgggacgagg aagccgcca gcgtgcactg
 300
 ctcgaccaca atcgacgcgc gttggaa
 327

<210> 2214

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2214

Met	Arg	Ser	Pro	Ser	Ile	Ala	Gly	Ala	Ser	Thr	His	Trp	Val	Ile	Ser
1				5				10					15		
Pro	Ser	Lys	His	Arg	Ser	Thr	Lys	Val	Leu	Thr	Glu	Gly	Pro	Ala	Asn
			20				25					30			
Pro	Ile	Ala	Ala	Ser	Ala	Leu	Arg	Ile	Ile	Arg	Ala	Arg	Val	Ser	Gln
		35				40				45					
Leu	Trp	Gly	Thr	Ser	Leu	Leu	Arg	Asn	Gly	Arg	Ala	Glu	Gln	Ser	Val
	50				55				60						
Val	Glu	Ile	Ala	Arg	Leu	Val	Asp	Ala	Ile	Thr	Ser	Arg	Asp	Glu	Glu
65					70				75					80	
Ala	Ala	Gln	Arg	Ala	Leu	Leu	Asp	His	Asn	Arg	Ser	Ala	Leu	Glu	
			85						90					95	

<210> 2215

<211> 430

<212> DNA

<213> Homo sapiens

<400> 2215

ctggggatca tgcctacat cactgcgtcg atcactctgc agctgctgac agtcgtgac
 60
 ccgaagctgg aaacccttaa gaaggagggc gcgtccggtc agaacaagat caccagctac
 120
 acccggtacc tcaactctcg gcttgggctg ttgcaggcaa cggccttcgt cacgcttgcc
 180
 acctccggcc gtctattcac cnntgcagct ntgccagtcg tctactccac ctcggtcttc
 240
 gaagtcgtcg tcatgatcct gactatgacg gccggtacga ccatcgatcat gtggatgggt
 300
 gagctcatca ccgaccgcgg tatcggcaac ggtatgtcga tcatgatttt cactcagatt
 360

gcggcgcggtt tccctgactc gctgtgggtct atcaagggtcg ctcgaaatgg cgccgggtcag
 420
 gctcacgcgt
 430

<210> 2216
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2216
 Leu Gly Ile Met Pro Tyr Ile Thr Ala Ser Ile Ile Leu Gln Leu Leu
 1 5 10 15
 Thr Val Val Ile Pro Lys Leu Glu Thr Leu Lys Lys Glu Gly Ala Ser
 20 25 30
 Gly Gln Asn Lys Ile Thr Gln Tyr Thr Arg Tyr Leu Thr Leu Val Leu
 35 40 45
 Gly Leu Leu Gln Ala Thr Ala Phe Val Thr Leu Ala Thr Ser Gly Arg
 50 55 60
 Leu Phe Thr Xaa Ala Ala Xaa Pro Val Val Tyr Ser Thr Ser Val Phe
 65 70 75 80
 Glu Val Val Val Met Ile Leu Thr Met Thr Ala Gly Thr Thr Ile Val
 85 90 95
 Met Trp Met Gly Glu Leu Ile Thr Asp Arg Gly Ile Gly Asn Gly Met
 100 105 110
 Ser Ile Met Ile Phe Thr Gln Ile Ala Ala Arg Phe Pro Asp Ser Leu
 115 120 125
 Trp Ser Ile Lys Val Ala Arg Asn Gly Ala Gly Gln Ala His Ala
 130 135 140

<210> 2217
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 2217
 accagggccg cttcgaagga cctctctcca gctatcgtga cgacgacggc gaagcgggct
 60
 atgacgtggc tcgatgacga cgtggggcgcc gacctgttga atcagggtga ttccatggac
 120
 catgccctgg aggccaccgt cccaggtcgg gtcaccacgc cggacgcca agtcatccag
 180
 acctgtgccg tgttgcgtga ccttgctcgc gtggcagtca gccagctggg ccgaaatgac
 240
 gaggactcta gggaaccagt cgatgctggag agagtacagg ctcaagcgnc gatgcggggag
 300
 gttttcgaga ccgccgaacg catggtgggg ctggccgccc cggacgtggt gtgggtctct
 360
 gagtctgaga agggataccg cagcattcac gtcgctccgc tgagtgttgg cggcttgcta
 420
 cgagagaatg tctttgctca gtcc
 444

<210> 2218

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 2218

```

Thr Arg Ala Ala Ser Lys Asp Leu Ser Pro Ala Ile Val Thr Thr Thr
 1           5           10           15
Ala Lys Arg Ala Met Thr Trp Leu Asp Asp Asp Val Gly Ala Asp Leu
      20           25           30
Leu Asn Gln Ala Asp Ser Met Asp His Ala Leu Glu Ala Thr Val Pro
      35           40           45
Gly Arg Val Thr Thr Pro Asp Ala Gln Val Ile Gln Thr Cys Ala Val
      50           55           60
Leu Arg Asp Leu Ala Arg Val Ala Val Ser Gln Leu Gly Arg Asn Asp
      65           70           75           80
Glu Asp Ser Arg Glu Pro Val Asp Ala Glu Arg Val Gln Ala Gln Ala
      85           90           95
Xaa Met Arg Glu Val Phe Glu Thr Ala Glu Arg Met Val Gly Leu Ala
      100          105          110
Ala Ala Asp Val Val Trp Val Ser Glu Ser Glu Lys Gly Tyr Arg Ser
      115          120          125
Ile His Val Ala Pro Leu Ser Val Gly Gly Leu Leu Arg Glu Asn Val
      130          135          140
Phe Ala Gln Ser
145

```

<210> 2219
 <211> 688
 <212> DNA
 <213> Homo sapiens

<400> 2219

```

acgcgtaccg tcgttggcat gagcgtcctg ccaactggaaa tttggctgtc attcagctac
60
ggcattacga atatggcgtg gatgtggcta tggttcgacg agcccggaaa ccgttgggag
120
tggtcgatcc ttttccccgc tgggtggctg accagcgctt tggtcagtcg ggggttcggt
180
ggaatgttcc atagtgtgca gattgcgcgt catgtcagca gttaccacgg catcatggtc
240
gctttcgcgc tcgttgggta cggatggctt gcgatgcaca acttgcgta cctgatgag
300
cgctattcga ttcgctcggc cttgataatc ggcacggca tccagttcac ctgggaggca
360
gtgctgatga tctcgggtat caggccgttg acatggcgcc cgcttggtat cgattctctc
420
atcgagacga atctcggcgc tccgttcattg ttgctcattg tgaaagcttg ggcgcgcga
480
cccgaaggaa ttcctggctc taccagtccg cgcccgaccg cccgtggcac agcgcgagtc
540
tatatgaggg atgatcttgt ttctcgacgc cttctacagc gtccttgaga gcctctgcga
600
gcgaagggcg cgggtgtagg tctccccggg gctcgttgtg gtcctctctc tgcgtgacgc
660

```

agagccgtgt gatgaggcga agtcatga
688

<210> 2220

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2220

Met	Ser	Val	Leu	Pro	Leu	Glu	Ile	Trp	Leu	Ser	Phe	Ser	Tyr	Gly	Ile
1			5					10						15	
Thr	Asn	Met	Ala	Trp	Met	Trp	Leu	Trp	Phe	Asp	Glu	Pro	Gly	Asn	Arg
			20				25						30		
Trp	Glu	Trp	Ser	Ile	Leu	Phe	Pro	Ala	Gly	Trp	Leu	Thr	Ser	Ala	Leu
		35				40					45				
Val	Ser	Gln	Gly	Phe	Gly	Gly	Met	Phe	His	Ser	Val	Gln	Ile	Ala	Arg
	50				55					60					
His	Val	Ser	Ser	Tyr	His	Gly	Ile	Met	Val	Ala	Phe	Ala	Leu	Val	Gly
65				70				75						80	
Tyr	Gly	Trp	Leu	Ala	Met	His	Asn	Leu	Arg	His	Pro	Asp	Glu	Arg	Tyr
			85					90					95		
Ser	Ile	Arg	Ser	Ala	Leu	Ile	Ile	Gly	Ile	Gly	Ile	Gln	Phe	Thr	Trp
			100					105				110			
Glu	Ala	Val	Leu	Met	Ile	Ser	Gly	Ile	Arg	Pro	Leu	Thr	Trp	Arg	Pro
		115					120				125				
Leu	Val	Ile	Asp	Ser	Leu	Ile	Glu	Thr	Asn	Leu	Gly	Ala	Pro	Phe	Met
	130					135					140				
Leu	Leu	Ile	Val	Lys	Ala	Trp	Arg	Ala	Pro	Pro	Glu	Gly	Ile	Pro	Gly
145				150				155						160	
Ser	Thr	Ser	Pro	Arg	Pro	Thr	Ala	Arg	Gly	Thr	Ala	Arg	Val	Tyr	Met
			165					170					175		
Arg	Asp	Asp	Leu	Val	Ser	Arg	Arg	Leu	Leu	Gln	Arg	Pro			
			180					185							

<210> 2221

<211> 530

<212> DNA

<213> Homo sapiens

<400> 2221

actagtgtag ctgcaatata tactcgggat ttactacagt taagccttat ccttccaccc
60
aaagaagagc aaaccgccat cgctaacgtc ctttccgaca tggacaccga actcgacgcc
120
ctacaacaac gcctcagtaa aaccaaacc atcaagcaag gcatgatgca agaactactc
180
acagggaataa cgagggttggg atgagccaca aggtgaattt agtgcattgag ctggataaagc
240
gtattatctc ggtaaatacg ttattgtcac agcctgagct tgctattccg gcttatcagc
300
ggccttataa atggtcacaa gagaacctaa atgcgctgat gaggatatta cgaattttatc
360
gtaacaaatc ggcttatcgg ctggggacgg tggtttttca ttatcataat gaaccgtag
420

acaacgagaa tacccacaag ctggatattg tagacgggtca gcaacgtacc ttaaccttgt
 480
 tgctgctagt caaagccatt ttagaagaac ggttgctctgc gttaacgcgt
 530

<210> 2222
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 2222
 Thr Ser Val Ala Ala Ile Tyr Thr Arg Asp Leu Leu Gln Leu Ser Leu
 1 5 10 15
 Ile Leu Pro Pro Lys Glu Glu Gln Thr Ala Ile Ala Asn Val Leu Ser
 20 25 30
 Asp Met Asp Thr Glu Leu Asp Ala Leu Gln Gln Arg Leu Ser Lys Thr
 35 40 45
 Lys Thr Ile Lys Gln Gly Met Met Gln Glu Leu Leu Thr Gly Lys Thr
 50 55 60
 Arg Leu Val
 65

<210> 2223
 <211> 482
 <212> DNA
 <213> Homo sapiens

<400> 2223
 cggccgcgcg ggtagtgagc cctgcgtcgg tggcgtaatg gaaaatgctg cgctgggttg
 60
 acaggcgcgga gacattgttg tggacgatgc cgctgtcgat cgggtggcacg ccggtgaaga
 120
 tgcatttatc caacggccgg gacagggccg gcagttcaca gtccagtttg taaagcgctg
 180
 cgcgtcctgc gctgatatag gcctggagat gcccctatggc gtgtcgggca acctcgtagt
 240
 tcaggccgtc gagcaccaca aggatgacgt tgtgcttcat aaggggagac gctccgcaac
 300
 gataggcttg actcatttca cttgaggaac ggggtcaaaa ctgtgggcgc gggcaagccc
 360
 gctccacac aagcccgtgc ccacattgga tctccaatgt gggctacagc cttactgcat
 420
 attgatgatg acttcttcct gccacttctg cggcagtgcc ttggaggtct tttccacgc
 480
 gt
 482

<210> 2224
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2224
 Met Ser Gln Ala Tyr Arg Cys Gly Ala Ser Pro Leu Met Lys His Asn

1	5	10	15
Val Ile Leu Val Val Leu Asp Gly Leu Asn Tyr Glu Val Ala Arg His			
	20	25	30
Ala Met Gly His Leu Gln Ala Tyr Ile Ser Ala Gly Arg Ala Ala Leu			
	35	40	45
Tyr Lys Leu Asp Cys Glu Leu Pro Ala Leu Ser Arg Pro Leu Asp Lys			
	50	55	60
Cys Ile Phe Thr Gly Val Pro Pro Ile Asp Ser Gly Ile Val His Asn			
65	70	75	80
Asn Val Ser Arg Leu Ser Asn Gln Arg Ser Ile Phe His Tyr Ala Thr			
	85	90	95
Asp Ala Gly Leu Thr Thr Ala Ala Ala			
	100	105	

<210> 2225

<211> 753

<212> DNA

<213> Homo sapiens

<400> 2225

nacgcgtctg atccacacgg gccactgacg tggcgttatg acagggagcg ggccgggtgcc
 60
 ggcgatcatcc tcgatctcat ggggtcacgga gaggatctcg tccagtatct actcaaaggg
 120
 cgattcactg aggtgtccgc cgtgtccgag acgttcatcc gtcagcgtcc caagccactc
 180
 aaggagggca tcggccacac aggttgggtc gtctcggacg agctcggggc ggtgggcaac
 240
 gaggattatt gcgctgtcat cggcgtatg gaaaacggag tgatgtgcac cctggagtcc
 300
 agtcgggtca gtgttgggccc gcgcgoggag tacatcgctc agatctatgg aaccgacgga
 360
 tcaatccggt ggaacttcga ggatctcaac catttgcagg tctgtctggg gcgaaacaat
 420
 cgtgccctgc agggatatgt caactgcatg gccggaccag acttcccgga gttcatgcgt
 480
 ttccaaccgg gagccggaac atccatgggc ttgacgaca tgaaggctcg tgaggctgcg
 540
 aaattcgtcc gaggggtctt ggatgggcag caatatggcc catctgtcgc cgatgggttg
 600
 gcctcagcgg aggtcaacga tgcgacgtt gctcctgcg ggggaccatg cctggcatga
 660
 cgtgaagccg gtttcgggga gaaccacgtt cgataagtga ccgcgtcatc gcgtgtctgt
 720
 gaccaggcct ggcggcacaa ccaggtcgcc ggc
 753

<210> 2226

<211> 219

<212> PRT

<213> Homo sapiens

<400> 2226

Xaa Ala Ser Asp Pro His Gly Pro Leu Thr Trp Arg Tyr Asp Arg Glu

1	5	10	15
Arg Ala Gly Ala Gly Val Ile Leu Asp Leu Met Gly His Gly Glu Asp			
	20	25	30
Leu Val Gln Tyr Leu Leu Lys Gly Arg Phe Thr Glu Val Ser Ala Val			
	35	40	45
Ser Glu Thr Phe Ile Arg Gln Arg Pro Lys Pro Leu Lys Glu Gly Ile			
	50	55	60
Gly His Thr Gly Trp Val Val Ser Asp Glu Leu Gly Pro Val Gly Asn			
65	70	75	80
Glu Asp Tyr Cys Ala Val Ile Ala Arg Met Glu Asn Gly Val Met Cys			
	85	90	95
Thr Leu Glu Ser Ser Arg Val Ser Val Gly Pro Arg Ala Glu Tyr Ile			
	100	105	110
Val Glu Ile Tyr Gly Thr Asp Gly Ser Ile Arg Trp Asn Phe Glu Asp			
	115	120	125
Leu Asn His Leu Gln Val Cys Leu Gly Arg Asn Asn Arg Ala Leu Gln			
	130	135	140
Gly Tyr Val Asn Cys Met Ala Gly Pro Asp Phe Pro Glu Phe Met Arg			
145	150	155	160
Phe Gln Pro Gly Ala Gly Thr Ser Met Gly Phe Asp Asp Met Lys Val			
	165	170	175
Val Glu Ala Ala Lys Phe Val Arg Gly Val Leu Asp Gly Gln Gln Tyr			
	180	185	190
Gly Pro Ser Val Ala Asp Gly Trp Ala Ser Ala Glu Val Asn Asp Ala			
	195	200	205
Ile Val Ala Ser Cys Gly Gly Pro Cys Leu Ala			
	210	215	

<210> 2227

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2227

```

ggatccgaaa cggtgggagc ataaagcagc atggcgcacc tactgaagac ggtggtggct
60
ggctgttcat gtcctttcct tagcaacttg gggctccteta aggttctacc tgggaagaga
120
gactttgtac gaacgcttcg tactcaccag gcactgtggt gtaaatcccc ggtaaagcca
180
ggaattccat ataagcagtt gacagttggg gtccccaagg agattttcca aaacgagaag
240
cgagttgcat tgtctcctgc ggggggtccag gccctgggtca agcaggggctt caatgttgtc
300
gtggaatcag gcgcaggcga agct
324

```

<210> 2228

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2228

Met Ala His Leu Leu Lys Thr Val Val Ala Gly Cys Ser Cys Pro Phe

1				5					10					15			
Leu	Ser	Asn	Leu	Gly	Ser	Ser	Lys	Val	Leu	Pro	Gly	Lys	Arg	Asp	Phe		
			20					25					30				
Val	Arg	Thr	Leu	Arg	Thr	His	Gln	Ala	Leu	Trp	Cys	Lys	Ser	Pro	Val		
		35					40					45					
Lys	Pro	Gly	Ile	Pro	Tyr	Lys	Gln	Leu	Thr	Val	Gly	Val	Pro	Lys	Glu		
	50					55					60						
Ile	Phe	Gln	Asn	Glu	Lys	Arg	Val	Ala	Leu	Ser	Pro	Ala	Gly	Val	Gln		
65					70					75					80		
Ala	Leu	Val	Lys	Gln	Gly	Phe	Asn	Val	Val	Val	Glu	Ser	Gly	Ala	Gly		
				85				90						95			
Glu	Ala																

<210> 2229

<211> 320

<212> DNA

<213> Homo sapiens

<400> 2229

acgcgtgaag gggccctgtg acgaggtcat ttctgtccat ggggggtcca gatggtgagg

60

cccacagaga gggaacgggc ggggggaggg gaggagagaa gacagactca ggcagaaccc

120

tagctcagcc ccttctgtcg tgcttgcccc tgggaggatg ccatccccag tcccctcttc

180

tgggccctgc tctggggact cggcacagat ggatccagtg catcctcagc cccctgagaa

240

gctgtgctgc catcagctcc ttctctgggt acagggcacg ggaagcggct gcccagcagg

300

cctcggtccc gccaagctgt

320

<210> 2230

<211> 94

<212> PRT

<213> Homo sapiens

<400> 2230

Met Gly Gly Pro Asp Gly Glu Ala His Arg Glu Gly Thr Gly Gly Gly

1

Arg Gly Gly Glu Lys Thr Asp Ser Gly Arg Thr Leu Ala Gln Pro Leu

20

Pro Ala Cys Leu Ala Leu Gly Gly Cys His Pro Gln Ser Pro Leu Leu

35

Gly Pro Ala Leu Gly Thr Arg His Arg Trp Ile Gln Cys Ile Leu Ser

50

Pro Leu Arg Ser Cys Ala Ala Ile Ser Ser Phe Ser Gly Tyr Arg Ala

65

Arg Glu Ala Ala Ala Gln Gln Ala Ser Val Pro Pro Ser Cys

85

<210> 2231

<211> 671

<212> DNA

<213> Homo sapiens

<400> 2231

```

gggctgtcta ccacgggctt cgggacttgg ggcagcttcc tgagctctct gagctgcagt
60
tccttcaacc acaaaatgag gagagtgcag gacctcagag gcttactgtg aggatggaga
120
aaagcccagt tcaatgcccc actgggaaat gcttcccatt aattgtggaa ttgtcgtgcc.
180
catttactgt cgggggtgaca ggggggggtgg gggtcagagt agagacagga gaaggaagtg
240
agcattttgt ggataccac cacgtgccag ggactgaacc ctatctggat ctctgcagc
300
cctcccaatg gcactgtgaa gccagtgttg ttttacagat gaggaaactg agatttgtgg
360
ctataacaga taaacagatg acctgaatg gggcaggtca tgtcatctgc catagataca
420
tgcatagaac aatgcaaacc agtcagtccc ctctgagtca gaccaggctg accatcaggg
480
acatgcagac actggcaggg ctgggggtgt tccccatcgg tgatagcctg gtgcccccat
540
ggccccgat gccacgggt gtctggaagg ctgggtcact gctgagaaga caaggagaca
600
ttttctctca ccagctttct tttttctatt ctttcttaga cacctgagct gcggtgatca
660
cagctcttaa g
671

```

<210> 2232

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2232

```

Met Glu Lys Ser Pro Val Gln Cys Pro Thr Gly Lys Cys Phe Pro Leu
1           5           10           15
Ile Val Glu Leu Ser Cys Pro Phe Thr Val Gly Val Thr Gly Gly Val
20           25           30
Gly Val Arg Val Glu Thr Gly Glu Gly Ser Glu His Leu Trp Asp Thr
35           40           45
His His Val Pro Gly Thr Glu Pro Tyr Leu Asp Leu Leu Gln Pro Ser
50           55           60
Gln Trp His Cys Glu Ala Ser Val Val Leu Gln Met Arg Lys Leu Arg
65           70           75           80
Phe Val Ala Ile Thr Asp Lys Gln Met Thr Leu Asn Gly Ala Gly His
85           90           95
Val Ile Cys His Arg Tyr Met His Arg Thr Met Gln Thr Ser Gln Ser
100          105          110
Pro Leu Ser Gln Thr Arg Leu Thr Ile Arg Asp Met Gln Thr Leu Ala
115          120          125
Gly Leu Gly Leu Phe Pro Ile Gly Asp Ser Leu Val Pro Pro Trp Pro
130          135          140
Leu Met Pro Thr Ala Val Trp Lys Ala Gly Ser Leu Leu Arg Arg Gln

```


145 150 155 160
 Gly Asp Ile Phe Ser His Gln Leu Ser Phe Phe Tyr Ser Phe Leu Asp
 165 170 175
 Thr

<210> 2233

<211> 6199

<212> DNA

<213> Homo sapiens

<400> 2233

acgcgtgatg atcggaatg tgaaaatcag ctggttctgc tgcttggttt caacaccttt
 60
 gatttcatta aagtgttgcg gcagcacagg atgatgattt tatactgtac cttgctggcc
 120
 agtgcacaaa gtgaagctga aaaggaaagg attatgggaa agatggaagc tgacccagag
 180
 ctatccaagt tcctctacca gcttcatgaa accgagaagg aggatctgat ccgagaggaa
 240
 aggtcccggg gagagcgagt gcgtcagtct cgaatggaca cagatctgga aaccatggat
 300
 ctcgaccagg gtggagaggg actggctcca cggcagggttc tggacttgga ggacctggtt
 360
 tttacccaag ggagccactt tatggccaat aaacgctgtc agcttctga tggatcctcc
 420
 cgctcgccagc gtaagggcta tgaagagggt catgtgcctg ctttgaagcc caagcccttt
 480
 ggctcagaag aacaattgct cccggtggaa aagctgcaa agtatgcca ggctgggttt
 540
 gagggcttca aaacgctgaa ccggatccag agtaagctct accgtgctgc ccttgagacg
 600
 gatgagaatc tgctgctgtg tgctcctact ggtgctggga agaccaacgt ggccctgatg
 660
 tgcattgctc gagagattgg gaaacacata aacatggacg gcacaatcaa tgtggatgac
 720
 ttcaagatta tctacatagc tcccatgcgc tccctggctc aggagatggt gggcagcttt
 780
 ggaaagcgcc tggccacata tggcatcact gttgctgagc tgactgggga tcaccagcta
 840
 tgcaaggagg aaatcagtgc cacacagatt atcgtctgca cccctgagaa gtgggacatc
 900
 atcacacgca agggcgggga gcgcacctac acccagctgg tgcgactcat tgtcttggat
 960
 gagatccatc ttctacatga tgacagaggt cctgtcttag aagctttggt ggccagggcc
 1020
 atccgaaaca ttgagatgac ccaagaagat gtccgactca ttggtctcag tgctaccctc
 1080
 cccaactatg aagatgtggc cacctttctg cgagtcgacc ctgctaaggg cctcttctac
 1140
 tttgataaca gcttccgccc cgtgcctctg gaacaaacat atgtgggcat cacagagaaa
 1200
 aaagctatca aacgtttcca gatcatgaat gaaatagtct atgagaaaat catggaacat
 1260

gctggaaaaa atcaggtgct cgtgtttgtc cattctcgca aagaaactgg gaagacagca
 1320
 agggcaatcc gtgacatgtg tctggagaag gacactttgg gtctgtttct tcgcgagggg
 1380
 tctgctcca ctgaagtcct tcgtacagaa gcagagcagt gcaagaactt ggagctgaag
 1440
 gatcttttgc cctatggctt tgctattcat catgcaggca tgactagagt tgaccgaaca
 1500
 ctctgtggagg atctttttgc tgataaacat attcaggttt tagtttccac cgcaactcta
 1560
 gcttgggggtg tgaatctccc tgcacataca gtcacatca aaggcaccga ggtgtacagt
 1620
 ccagagaagg ggcgttggac agaactggga gcaactggaca ttctgcagat gctgggacgt
 1680
 gccggaagac cccagtatga caccaagggt gaaggcatac tcatcacatc tcatggggag
 1740
 ctacagtact acctgtccct cctcaatcaa caacttcta ttgaaagcca gatggtttca
 1800
 aagcttcttg acatgctcaa tgcagaaatc gtgctaggaa atgtccagaa tgccaaggat
 1860
 gcggtgaact ggctgggcta tgccctaccc tatatccgaa tgctgcgac cccaaccctc
 1920
 tatggcatct ctcatgatga cctcaaggga gatccctgc tggaccagcg ccgactagat
 1980
 ctggttcata cagctgccct gatgctggac aagaacaatc tggtaagta cgacaagaag
 2040
 acgggcaact tccaggtgac agaactgggc cgtatagcca gccactacta catcaccaat
 2100
 gatacagtgc agacttacaa ccagctgctg aagcccaccc tgagtggagt tgagcttttc
 2160
 agggctctct cattgtcctc tgagttcaag aacatcacag tgagagagga ggagaagctg
 2220
 gagctgcaga agttgctgga gaggggtgcct atccctgtaa aggagagcat tgaggaaccc
 2280
 agtgctaaga tcaacgttct tctgcaagcc ttcattcac agctgaaatt ggagggcttt
 2340
 gcactgatgg ctgacatggg gtatgtcaca cagtcggctg gccggttgat gcgagcgata
 2400
 tttgaaattg tcctgaaccg aggttgggca cagcttacag acaagaccct gaacctctgc
 2460
 aagatgatcg acaaacgcat gtggcagtc atgtgtcctc tgcgccagtt ccggaaactc
 2520
 cctgaggaag tagtgaagaa gattgagaag aagaatttcc cctttgagcg tctgtacgac
 2580
 ctgaatcata atgagattgg ggagcttata cgcattgcaa agatggggaa gaccatccac
 2640
 aaatatgtcc atctgtttcc caagttggag ttgtcagtc acctgcagcc tatcacacgc
 2700
 tccaccctga aggtggagct gaccatcacg ccagacttcc agtgggatga aaaggtgcat
 2760
 ggttcatccg aggttttttg gattctgggtg gaggatgtgg acagcgaggt gattctgcac
 2820
 catgagtatt ttctcctcaa ggccaagtac gcccaggacg agcacctcat tacattcttc
 2880

gtgcctgtct ttgaaccgct gccccctcag tacttcatcc gagtgggtgtc tgaccgctgg
 2940
 ctctcttgtg agaccacagct gcctgtctcc ttccggcacc tgatcttgcc ggagaagtac
 3000
 cccccctcaa ccgaactttt ggacctgcag cccttgcccc tgtctgtctt gagaaacagt
 3060
 gcctttgaga gtctttacca agataaattt cttttcttca atcccatcca gaccacagtg
 3120
 tttaacactg tatacaacag tgacgacaac gtgtttgtgg gggccccac gggcagcggg
 3180
 aagactattt gtgcagagtt tgccatcctg cgaatgctgc tgcagagctc ggaggggagc
 3240
 tgtgtgtaca tcacccccat ggaggccctg gcagagcagg tatacatgga ctggtacgag
 3300
 aagttccagg acaggctcaa caagaagggt gtactcctga caggcgagac cagcacagac
 3360
 ctgaagctgc tgggcaaaag gaacattatc atcagcacc ctgagaagtg ggacatactt
 3420
 tcccggcgat ggaagcagcg caagaacgtg cagaacatca acctcttcgt ggtggatgag
 3480
 gtccacctta tcggggggcga gaatgggcct gtcttagaag tgatctgctc ccgaatgcgc
 3540
 tacatctcct ccagattga gcggccatt cgcattgtgg cactcagctc ttcgctctcc
 3600
 aatgccaagg atgtggccca ctggtgggc tgcagtgcc cctccacctt caacttccat
 3660
 cccaatgtgc gtcccgtccc cttggagctg cacatccagg gcttcaacat cagccataca
 3720
 caaacccgcc tgctctccat ggccaagcct gtgtaccatg ctatcaccaa gcactcgccc
 3780
 aagaagcctg tcattgtctt tgtgocgtct cgcaagcaga cccgcctcac tgccattgac
 3840
 atcctcacca cctgtgcagc agacatccaa cggcagaggt tcttgactg caccgagaag
 3900
 gatctgattc cgtacctgga gaagctaagt gacagcacgc tcaaggaaac gctgctaaat
 3960
 ggggtgggct acctgcatga ggggctcagc cccatggagc gacgcctggt ggagcagctc
 4020
 ttcagctcag gggctatcca ggtgggtgtg gcttctcgga gtctctgctg gggcatgaac
 4080
 gtggctgccc acctggtaat catcatggat acccagtact acaatggcaa gatccacgcc
 4140
 tatgtggatt acccatcta tgacgtgctt cagatgggtg gccacgcaa ccgcccttg
 4200
 caggacgatg aggggcgctg tgtcatcatg tgtcagggt ccaagaagga tttcttcaag
 4260
 aagttcttat atgagccatt gccagtagaa tctcacctgg accactgtat gcatgaccac
 4320
 ttcaatgctg agatcgtcac caagaccatt gagaacaagc aggatgctgt ggactacctc
 4380
 acctggacct ttctgtaccg ccgcatgaca cagaacccca attactacaa cctgcagggc
 4440
 atctccatc gtcacttgtc ggaccacttg tcagagctgg tggagcagac cctgagtgac
 4500

ctggagcagt ccaagtgc at cagcatcgag gacgagatgg acgtggcgcc tctgaaccta
 4560
 ggc at gatcg ccgcctacta ttacatcaac tacaccacca ttgagctctt cagcatgtcc
 4620
 ctcaatgcc aagaccaaggt gcgagggctt atcgagatca tctccaatgc agcagagtat
 4680
 gagaacattc ccatccggca ccatgaagac aatctcctga ggcagttggc tcagaaggtc
 4740
 cccacaagc tgaataaccc taagttcaat gatccgcacg tcaagaccaa cctgctcctg
 4800
 caggctcact tgtctcgcat gcagctgagt gctgagttgc agtcagatac ggaggaaatc
 4860
 cttagtaagg caatccggct catccaggcc tgcgtggatg tcctttccag caatgggtgg
 4920
 ctccagccctg ctctggcagc tatggaactg gccagatgg tcaccaagc catgtgggtcc
 4980
 aaggactcat acctgaagca gctgccacac ttcacctctg agcatatcaa acgttgacaa
 5040
 gacaagggag tggagagtgt tttcgacatc atggagatgg aggatgaaga acggaacgcg
 5100
 ttgcttcagc tgactgacag ccagattgca gatgtggctc gcttttgtaa ccgctaccct
 5160
 aatatcgaac tatcttatga ggtggtagat aaggacagca tccgcagtgg cgggccagtt
 5220
 gtggtgctgg tgcagctgga gcgagaggag gaagtcacag gccctgtcat tgcgcctctc
 5280
 ttcccgca aacgtgaaga gggctgggtg gtggtgattg gagatgccaa gtccaatagc
 5340
 ctcatctcca tcaagaggct gacctgcag cagaaggcca aggtgaagtt ggactttgtg
 5400
 gcccagcca ctgggtgcca caactacact ctgtacttca tgagtgcgc ttacatggga
 5460
 tgtgaccagg agtacaaatt cagcgtggat gtgaaagaag ctgagacaga cagtgttca
 5520
 gattgagtc tgaggcattt acttttgggt aaaggagagt tgagcctgaa ttaggaatgt
 5580
 gtacattgta ggaatcctgg ttgtggggac caggctctgtg ggcctcaggt ctggccagcc
 5640
 agggctgggt ctgtccccgc ctacctccac ttcctttccc ttgctcactc tggatccagt
 5700
 gacagcaggt gtc atgggtc aagcataaat catatatagc attttcaggc atgttcctgg
 5760
 tagttctttt gagtctgaca ttctaataaa ataatttga gaaaccattt gtctttgtag
 5820
 tgattccaaa taaaagttt tctttctcca acctgagggc acggccaaaa agatctgggt
 5880
 attttttagc caggaacgtg cttgttaatg agtatgtctg gaggacagac ctgctcatta
 5940
 ggtgtgctgt cccctgtagc ctctgtgagtc agcccagagg aggttacatg cgactgtggc
 6000
 ctggcctcag tggtaaccac acatcagcac taccacaaga accaactg agcctcggaa
 6060
 gctagatcac aggttagggg tttctctaga tgggggttct gaaatttgca gtgtctgctc
 6120

ctgggaggca gcaccagaaa gggcactgaa atgtactagc tggatgtgac ccagtcttaa
 6180
 taaacagggtt ttctaattcc
 6199

<210> 2234
 <211> 1701
 <212> PRT
 <213> Homo sapiens

<400> 2234
 Arg Arg Gln Arg Lys Gly Tyr Glu Glu Val His Val Pro Ala Leu Lys
 1 5 10 15
 Pro Lys Pro Phe Gly Ser Glu Glu Gln Leu Leu Pro Val Glu Lys Leu
 20 25 30
 Pro Lys Tyr Ala Gln Ala Gly Phe Glu Gly Phe Lys Thr Leu Asn Arg
 35 40 45
 Ile Gln Ser Lys Leu Tyr Arg Ala Ala Leu Glu Thr Asp Glu Asn Leu
 50 55 60
 Leu Leu Cys Ala Pro Thr Gly Ala Gly Lys Thr Asn Val Ala Leu Met
 65 70 75 80
 Cys Met Leu Arg Glu Ile Gly Lys His Ile Asn Met Asp Gly Thr Ile
 85 90 95
 Asn Val Asp Asp Phe Lys Ile Ile Tyr Ile Ala Pro Met Arg Ser Leu
 100 105 110
 Val Gln Glu Met Val Gly Ser Phe Gly Lys Arg Leu Ala Thr Tyr Gly
 115 120 125
 Ile Thr Val Ala Glu Leu Thr Gly Asp His Gln Leu Cys Lys Glu Glu
 130 135 140
 Ile Ser Ala Thr Gln Ile Ile Val Cys Thr Pro Glu Lys Trp Asp Ile
 145 150 155 160
 Ile Thr Arg Lys Gly Gly Glu Arg Thr Tyr Thr Gln Leu Val Arg Leu
 165 170 175
 Ile Val Leu Asp Glu Ile His Leu Leu His Asp Asp Arg Gly Pro Val
 180 185 190
 Leu Glu Ala Leu Val Ala Arg Ala Ile Arg Asn Ile Glu Met Thr Gln
 195 200 205
 Glu Asp Val Arg Leu Ile Gly Leu Ser Ala Thr Leu Pro Asn Tyr Glu
 210 215 220
 Asp Val Ala Thr Phe Leu Arg Val Asp Pro Ala Lys Gly Leu Phe Tyr
 225 230 235 240
 Phe Asp Asn Ser Phe Arg Pro Val Pro Leu Glu Gln Thr Tyr Val Gly
 245 250 255
 Ile Thr Glu Lys Lys Ala Ile Lys Arg Phe Gln Ile Met Asn Glu Ile
 260 265 270
 Val Tyr Glu Lys Ile Met Glu His Ala Gly Lys Asn Gln Val Leu Val
 275 280 285
 Phe Val His Ser Arg Lys Glu Thr Gly Lys Thr Ala Arg Ala Ile Arg
 290 295 300
 Asp Met Cys Leu Glu Lys Asp Thr Leu Gly Leu Phe Leu Arg Glu Gly
 305 310 315 320
 Ser Ala Ser Thr Glu Val Leu Arg Thr Glu Ala Glu Gln Cys Lys Asn
 325 330 335
 Leu Glu Leu Lys Asp Leu Leu Pro Tyr Gly Phe Ala Ile His His Ala

				340					345					350		
Gly	Met	Thr	Arg	Val	Asp	Arg	Thr	Leu	Val	Glu	Asp	Leu	Phe	Ala	Asp	
		355					360					365				
Lys	His	Ile	Gln	Val	Leu	Val	Ser	Thr	Ala	Thr	Leu	Ala	Trp	Gly	Val	
	370					375					380					
Asn	Leu	Pro	Ala	His	Thr	Val	Ile	Ile	Lys	Gly	Thr	Gln	Val	Tyr	Ser	
385					390					395					400	
Pro	Glu	Lys	Gly	Arg	Trp	Thr	Glu	Leu	Gly	Ala	Leu	Asp	Ile	Leu	Gln	
			405						410					415		
Met	Leu	Gly	Arg	Ala	Gly	Arg	Pro	Gln	Tyr	Asp	Thr	Lys	Gly	Glu	Gly	
		420					425						430			
Ile	Leu	Ile	Thr	Ser	His	Gly	Glu	Leu	Gln	Tyr	Tyr	Leu	Ser	Leu	Leu	
	435						440					445				
Asn	Gln	Gln	Leu	Pro	Ile	Glu	Ser	Gln	Met	Val	Ser	Lys	Leu	Pro	Asp	
	450					455					460					
Met	Leu	Asn	Ala	Glu	Ile	Val	Leu	Gly	Asn	Val	Gln	Asn	Ala	Lys	Asp	
465					470					475					480	
Ala	Val	Asn	Trp	Leu	Gly	Tyr	Ala	Tyr	Leu	Tyr	Ile	Arg	Met	Leu	Arg	
			485						490					495		
Ser	Pro	Thr	Leu	Tyr	Gly	Ile	Ser	His	Asp	Asp	Leu	Lys	Gly	Asp	Pro	
		500					505						510			
Leu	Leu	Asp	Gln	Arg	Arg	Leu	Asp	Leu	Val	His	Thr	Ala	Ala	Leu	Met	
	515						520					525				
Leu	Asp	Lys	Asn	Asn	Leu	Val	Lys	Tyr	Asp	Lys	Lys	Thr	Gly	Asn	Phe	
	530					535					540					
Gln	Val	Thr	Glu	Leu	Gly	Arg	Ile	Ala	Ser	His	Tyr	Tyr	Ile	Thr	Asn	
545					550					555					560	
Asp	Thr	Val	Gln	Thr	Tyr	Asn	Gln	Leu	Leu	Lys	Pro	Thr	Leu	Ser	Glu	
			565						570					575		
Ile	Glu	Leu	Phe	Arg	Val	Phe	Ser	Leu	Ser	Ser	Glu	Phe	Lys	Asn	Ile	
		580					585						590			
Thr	Val	Arg	Glu	Glu	Glu	Lys	Leu	Glu	Leu	Gln	Lys	Leu	Leu	Glu	Arg	
	595						600					605				
Val	Pro	Ile	Pro	Val	Lys	Glu	Ser	Ile	Glu	Glu	Pro	Ser	Ala	Lys	Ile	
	610					615					620					
Asn	Val	Leu	Leu	Gln	Ala	Phe	Ile	Ser	Gln	Leu	Lys	Leu	Glu	Gly	Phe	
625					630					635					640	
Ala	Leu	Met	Ala	Asp	Met	Val	Tyr	Val	Thr	Gln	Ser	Ala	Gly	Arg	Leu	
			645						650					655		
Met	Arg	Ala	Ile	Phe	Glu	Ile	Val	Leu	Asn	Arg	Gly	Trp	Ala	Gln	Leu	
		660					665						670			
Thr	Asp	Lys	Thr	Leu	Asn	Leu	Cys	Lys	Met	Ile	Asp	Lys	Arg	Met	Trp	
	675															

770	775	780
Ala Phe Trp Ile Leu Val Glu Asp Val Asp Ser Glu Val Ile Leu His		
785	790	795
His Glu Tyr Phe Leu Leu Lys Ala Lys Tyr Ala Gln Asp Glu His Leu		800
	805	810
Ile Thr Phe Phe Val Pro Val Phe Glu Pro Leu Pro Pro Gln Tyr Phe		815
	820	825
Ile Arg Val Val Ser Asp Arg Trp Leu Ser Cys Glu Thr Gln Leu Pro		830
	835	840
Val Ser Phe Arg His Leu Ile Leu Pro Glu Lys Tyr Pro Pro Pro Thr		845
	850	855
Glu Leu Leu Asp Leu Gln Pro Leu Pro Val Ser Ala Leu Arg Asn Ser		860
865	870	875
Ala Phe Glu Ser Leu Tyr Gln Asp Lys Phe Pro Phe Phe Asn Pro Ile		880
	885	890
Gln Thr Gln Val Phe Asn Thr Val Tyr Asn Ser Asp Asp Asn Val Phe		895
	900	905
Val Gly Ala Pro Thr Gly Ser Gly Lys Thr Ile Cys Ala Glu Phe Ala		910
	915	920
Ile Leu Arg Met Leu Leu Gln Ser Ser Glu Gly Arg Cys Val Tyr Ile		925
930	935	940
Thr Pro Met Glu Ala Leu Ala Glu Gln Val Tyr Met Asp Trp Tyr Glu		945
	950	955
Lys Phe Gln Asp Arg Leu Asn Lys Lys Val Val Leu Leu Thr Gly Glu		960
	965	970
Thr Ser Thr Asp Leu Lys Leu Leu Gly Lys Gly Asn Ile Ile Ile Ser		975
	980	985
Thr Pro Glu Lys Trp Asp Ile Leu Ser Arg Arg Trp Lys Gln Arg Lys		990
	995	1000
Asn Val Gln Asn Ile Asn Leu Phe Val Val Asp Glu Val His Leu Ile		1005
1010	1015	1020
Gly Gly Glu Asn Gly Pro Val Leu Glu Val Ile Cys Ser Arg Met Arg		1025
	1030	1035
Tyr Ile Ser Ser Gln Ile Glu Arg Pro Ile Arg Ile Val Ala Leu Ser		1040
	1045	1050
Ser Ser Leu Ser Asn Ala Lys Asp Val Ala His Trp Leu Gly Cys Ser		1055
	1060	1065
Ala Thr Ser Thr Phe Asn Phe His Pro Asn Val Arg Pro Val Pro Leu		1070
	1075	1080
Glu Leu His Ile Gln Gly Phe Asn Ile Ser His Thr Gln Thr Arg Leu		1085
	1090	1095
Leu Ser Met Ala Lys Pro Val Tyr His Ala Ile Thr Lys His Ser Pro		1100
1105	1110	1115
Lys Lys Pro Val Ile Val Phe Val Pro Ser Arg Lys Gln Thr Arg Leu		1120
	1125	1130
Thr Ala Ile Asp Ile Leu Thr Thr Cys Ala Ala Asp Ile Gln Arg Gln		1135
	1140	1145
Arg Phe Leu His Cys Thr Glu Lys Asp Leu Ile Pro Tyr Leu Glu Lys		1150
	1155	1160
Leu Ser Asp Ser Thr Leu Lys Glu Thr Leu Leu Asn Gly Val Gly Tyr		1165
	1170	1175
Leu His Glu Gly Leu Ser Pro Met Glu Arg Arg Leu Val Glu Gln Leu		1180
1185	1190	1195
Phe Ser Ser Gly Ala Ile Gln Val Val Val Ala Ser Arg Ser Leu Cys		1200

	1205	1210	1215
Trp Gly Met Asn Val Ala Ala His Leu Val Ile Ile Met Asp Thr Gln			
	1220	1225	1230
Tyr Tyr Asn Gly Lys Ile His Ala Tyr Val Asp Tyr Pro Ile Tyr Asp			
	1235	1240	1245
Val Leu Gln Met Val Gly His Ala Asn Arg Pro Leu Gln Asp Asp Glu			
	1250	1255	1260
Gly Arg Cys Val Ile Met Cys Gln Gly Ser Lys Lys Asp Phe Phe Lys			
1265	1270	1275	1280
Lys Phe Leu Tyr Glu Pro Leu Pro Val Glu Ser His Leu Asp His Cys			
	1285	1290	1295
Met His Asp His Phe Asn Ala Glu Ile Val Thr Lys Thr Ile Glu Asn			
	1300	1305	1310
Lys Gln Asp Ala Val Asp Tyr Leu Thr Trp Thr Phe Leu Tyr Arg Arg			
	1315	1320	1325
Met Thr Gln Asn Pro Asn Tyr Tyr Asn Leu Gln Gly Ile Ser His Arg			
	1330	1335	1340
His Leu Ser Asp His Leu Ser Glu Leu Val Glu Gln Thr Leu Ser Asp			
1345	1350	1355	1360
Leu Glu Gln Ser Lys Cys Ile Ser Ile Glu Asp Glu Met Asp Val Ala			
	1365	1370	1375
Pro Leu Asn Leu Gly Met Ile Ala Ala Tyr Tyr Tyr Ile Asn Tyr Thr			
	1380	1385	1390
Thr Ile Glu Leu Phe Ser Met Ser Leu Asn Ala Lys Thr Lys Val Arg			
	1395	1400	1405
Gly Leu Ile Glu Ile Ile Ser Asn Ala Ala Glu Tyr Glu Asn Ile Pro			
	1410	1415	1420
Ile Arg His His Glu Asp Asn Leu Leu Arg Gln Leu Ala Gln Lys Val			
1425	1430	1435	1440
Pro His Lys Leu Asn Asn Pro Lys Phe Asn Asp Pro His Val Lys Thr			
	1445	1450	1455
Asn Leu Leu Leu Gln Ala His Leu Ser Arg Met Gln Leu Ser Ala Glu			
	1460	1465	1470
Leu Gln Ser Asp Thr Glu Glu Ile Leu Ser Lys Ala Ile Arg Leu Ile			
	1475	1480	1485
Gln Ala Cys Val Asp Val Leu Ser Ser Asn Gly Trp Leu Ser Pro Ala			
	1490	1495	1500
Leu Ala Ala Met Glu Leu Ala Gln Met Val Thr Gln Ala Met Trp Ser			
1505	1510	1515	1520
Lys Asp Ser Tyr Leu Lys Gln Leu Pro His Phe Thr Ser Glu His Ile			
	1525	1530	1535
Lys Arg Cys Thr Asp Lys Gly Val Glu Ser Val Phe Asp Ile Met Glu			
	1540	1545	1550
Met Glu Asp Glu Glu Arg Asn Ala Leu Leu Gln Leu Thr Asp Ser Gln			
	1555	1560	1565
Ile Ala Asp Val Ala Arg Phe Cys Asn Arg Tyr Pro Asn Ile Glu Leu			
	1570	1575	1580
Ser Tyr Glu Val Val Asp Lys Asp Ser Ile Arg Ser Gly Gly Pro Val			
1585	1590	1595	1600
Val Val Leu Val Gln Leu Glu Arg Glu Glu Glu Val Thr Gly Pro Val			
	1605	1610	1615
Ile Ala Pro Leu Phe Pro Gln Lys Arg Glu Glu Gly Trp Trp Val Val			
	1620	1625	1630
Ile Gly Asp Ala Lys Ser Asn Ser Leu Ile Ser Ile Lys Arg Leu Thr			

1635 1640 1645
 Leu Gln Gln Lys Ala Lys Val Lys Leu Asp Phe Val Ala Pro Ala Thr
 1650 1655 1660
 Gly Ala His Asn Tyr Thr Leu Tyr Phe Met Ser Asp Ala Tyr Met Gly
 1665 1670 1675 1680
 Cys Asp Gln Glu Tyr Lys Phe Ser Val Asp Val Lys Glu Ala Glu Thr
 1685 1690 1695
 Asp Ser Asp Ser Asp
 1700

<210> 2235
 <211> 586
 <212> DNA
 <213> Homo sapiens

<400> 2235
 tctagaatga gtatgaggac actctcacca gagtgagggtg aaggtgtata cagctggcac
 60
 tcagtgttg cacattctcc actggcagaa tgactcccgga cgtggctcgg gctccccgga
 120
 agacaccct cgaagcagtg gtgcctctag catcttcgac ctgaggaacc tggcagctga
 180
 ctcattgttg cctctctctgc tagagcgggc ggccccagaa gatgtggacc ggcgcaatga
 240
 agcccttcga cggcagcacc ggcccccggc cctgcttccc ctctaccggg cacctgacga
 300
 ggatgaagcc ggggaacgct gtagccgct agagccaccc ccgagagcac ttggaacaa
 360
 ggatcttggt caagtgtctg tcgctcaagt tcgagattga aattgagccc atctttggga
 420
 tcttggtct gtatgatgtg cggaagaaaa agaagatctc ggaaaacttc tacttcgacc
 480
 tgaactcgga ctccatgaag gggctgcttc gggctcatgg caccaccct gccatctcca
 540
 ccctggcccg ctctgccatc ttctctgtga cctaccctc acgcgt
 586

<210> 2236
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 2236
 Met Ser Pro Lys Gln Pro Leu His Gly Val Arg Val Gln Val Glu Val
 1 5 10 15
 Glu Val Phe Arg Asp Leu Leu Phe Leu Pro His Ile Ile Gln Ser Gln
 20 25 30
 Asp Pro Lys Asp Gly Leu Asn Phe Asn Leu Glu Leu Glu Arg Gln Thr
 35 40 45
 Leu Asp Gln Asp Pro Leu Ser Lys Val Leu Ala Gly Val Ala Leu Gly
 50 55 60
 Gly Tyr Ser Val Pro Arg Leu His Pro Arg Gln Val Pro Gly Arg Gly
 65 70 75 80
 Glu Ala Gly Pro Gly Ala Gly Ala Ala Val Glu Gly Leu His Cys Ala

				85					90				95				
Gly	Pro	His	Leu	Leu	Gly	Pro	Pro	Ala	Leu	Ala	Glu	Arg	Ala	Thr	Met		
			100					105					110				
Ser	Gln	Leu	Pro	Gly	Ser	Ser	Gly	Arg	Arg	Cys							
		115					120										

<210> 2237

<211> 421

<212> DNA

<213> Homo sapiens

<400> 2237

```

cctaggaagg cacacctgtg tcccactgca gccaaagagga agcaccccaa acactcctct
60
tggggcgcag gagtgcctggc cagcttgggg atagtcctctg gaagtggctg ggagcactga
120
gggaggagct gaggtccaag cctcctcca gtgcatcacc ctggtcagga gtggggcagt
180
gtggagccag gggctcttca gccagcacct gctgcactat gggctccagc tgtgcaagac
240
caccctgtgag aaggagtctt gttgggagca ggggtggggaa gcactgtggg agaggtgtcc
300
ttggctcggg tagcaggagc cttgatgtat cttgaagcca gggggccgac tgaggcgctt
360
gtctgaaggc ctccatgaga gggagggggc tggagggggc tgttcccaat aatagctcta
420
t
421

```

<210> 2238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 2238

Met	Glu	Ala	Phe	Arg	Gln	Ala	Pro	Gln	Ser	Ala	Pro	Trp	Leu	Gln	Asp		
1				5				10					15				
Thr	Ser	Arg	Ser	Leu	Leu	Pro	Glu	Pro	Arg	Thr	Pro	Leu	Pro	Gln	Cys		
			20					25				30					
Phe	Pro	Thr	Leu	Leu	Pro	Thr	Arg	Leu	Leu	Leu	Thr	Gly	Gly	Leu	Ala		
		35				40					45						
Gln	Leu	Glu	Pro	Ile	Val	Gln	Gln	Val	Leu	Ala	Glu	Glu	Pro	Leu	Ala		
	50				55					60							
Pro	His	Cys	Pro	Thr	Pro	Asp	Gln	Gly	Asp	Ala	Leu	Glu	Glu	Gly	Leu		
65				70				75						80			
Asp	Leu	Ser	Ser	Ser	Leu	Ser	Ala	Pro	Asp	His	Phe	Gln	Gly	Leu	Ser		
			85					90				95					
Pro	Ser	Trp	Pro	Ala	Leu	Leu	Arg	Pro	Lys	Arg	Ser	Val	Trp	Gly	Ala		
		100					105					110					
Ser	Ser	Trp	Leu	Gln	Trp	Asp	Thr	Gly	Val	Pro	Ser						
		115					120										

<210> 2239

<211> 623

<212> DNA

<213> Homo sapiens

<400> 2239

gctagcagga ctcagaaatc tgctgttgag cacaaagcca aaaaatctct gtcccatcct
60
agccattcca ggcctgggcc catggtcacc ccacacaata aggctaagag tccaggtgtc
120
aggcagccag gcagcagctc tagctcagcc cctgggcagc ccagcacagg ggttgctcga
180
cccacagtta gttctggccc tgtgcctagg cgccagaatg gcagctccag ctcaggacct
240
gagcgatcaa tcagtgggtc caagaagcca accaatgact caaatccctc taggcggaca
300
gtcagtggta catgtggccc tggacaacct gcaagcagct caggtggccc tgggcgaccc
360
atcagtgggt cagttagttc tgcaagacct ttgggcagct ctcgtggccc tggccggcct
420
gtgagcagtc cacatgaact tcgacgacca gtgagtggct tggggccccc ggggcggctc
480
gtcagtggcc ctgggagatc cataagtggc ccaattccag ctggacggac tgtcagtaat
540
tcagtcccag gaagaccagt gagcagcttg ggacctgggc aaacagttag tagctcaggt
600
cccactataa agcctaagtg cac
623

<210> 2240

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2240

Ala	Ser	Arg	Thr	Gln	Lys	Ser	Ala	Val	Glu	His	Lys	Ala	Lys	Lys	Ser
1				5					10					15	
Leu	Ser	His	Pro	Ser	His	Ser	Arg	Pro	Gly	Pro	Met	Val	Thr	Pro	His
			20					25					30		
Asn	Lys	Ala	Lys	Ser	Pro	Gly	Val	Arg	Gln	Pro	Gly	Ser	Ser	Ser	Ser
		35				40						45			
Ser	Ala	Pro	Gly	Gln	Pro	Ser	Thr	Gly	Val	Ala	Arg	Pro	Thr	Val	Ser
	50				55					60					
Ser	Gly	Pro	Val	Pro	Arg	Arg	Gln	Asn	Gly	Ser	Ser	Ser	Ser	Gly	Pro
65				70					75					80	
Glu	Arg	Ser	Ile	Ser	Gly	Ser	Lys	Lys	Pro	Thr	Asn	Asp	Ser	Asn	Pro
			85					90						95	
Ser	Arg	Arg	Thr	Val	Ser	Gly	Thr	Cys	Gly	Pro	Gly	Gln	Pro	Ala	Ser
			100				105						110		
Ser	Ser	Gly	Pro	Gly	Arg	Pro	Ile	Ser	Gly	Ser	Val	Ser	Ser	Ala	
		115			120						125				
Arg	Pro	Leu	Gly	Ser	Ser	Arg	Gly	Pro	Gly	Arg	Pro	Val	Ser	Ser	Pro
		130			135						140				
His	Glu	Leu	Arg	Arg	Pro	Val	Ser	Gly	Leu	Gly	Pro	Pro	Gly	Arg	Ser
145				150						155				160	
Val	Ser	Gly	Pro	Gly	Arg	Ser	Ile	Ser	Gly	Pro	Ile	Pro	Ala	Gly	Arg

				165					170					175	
Thr	Val	Ser	Asn	Ser	Val	Pro	Gly	Arg	Pro	Val	Ser	Ser	Leu	Gly	Pro
			180					185					190		
Gly	Gln	Thr	Val	Ser	Ser	Ser	Gly	Pro	Thr	Ile	Lys	Pro	Lys	Cys	
		195					200					205			

```
<210> 2241
<211> 656
<212> DNA
<213> Homo sapiens
```

```

<400> 2241
nnacgcgtga agggcagcag caacaccacg gagtgtgttc ccgtgcccac ctccgagcac
60
gtggccgaga tcgtgggagc gcaaggctgc aagattaagg ccttgagggc caagaccaac
120
acctacatta gaaccccgagg aaggggcgag gaaccagtgt tcatggtgac agggcgacgg
180
gaggacgtgg ccacagcccc gcgggaaatc atctcagcag cggagcactt ctccatgatc
240
cgtgcctccc gcaacaagtc aggcgcgcgc ttgtgtgtgg ctctgtctct gcccggccag
300
gtgaccatcc gtgtgcgggt gccctaccgc gtggtggggc tgggtggtggg ccccaaaggg
360
gcaaccatca agcgcattca gcagcaaacc aacacataca ttatcacacc aagccgtgac
420
cgcgaccccg tgttcgagat cacgggtgcc ccaggcaacg tggagcgtgc gcgcgaggag
480
atcgagacgc acatcgcggg gcgcactggc aagatcctcg agtacaacaa tgaaaacgac
540
ttcctggcgg ggagccccga cgcagcaatc gatagccgct actccgacgc ctggcggggtg
600
caccagcccc gctgcaagcc cctctccacc ttccggcaga acagcctggg ctgcag
656

```

```
<210> 2242
<211> 218
<212> PRT
<213> Homo sapiens
```

```

<400> 2242
Xaa Arg Val Lys Gly Ser Ser Asn Thr Thr Glu Cys Val Pro Val Pro
 1          5          10          15
Thr Ser Glu His Val Ala Glu Ile Val Gly Arg Gln Gly Cys Lys Ile
      20          25          30
Lys Ala Leu Arg Ala Lys Thr Asn Thr Tyr Ile Arg Thr Pro Gly Arg
      35          40          45
Gly Glu Glu Pro Val Phe Met Val Thr Gly Arg Arg Glu Asp Val Ala
      50          55          60
Thr Ala Arg Arg Glu Ile Ser Ala Ala Glu His Phe Ser Met Ile
65          70          75          80
Arg Ala Ser Arg Asn Lys Ser Gly Ala Ala Phe Gly Val Ala Pro Ala
      85          90          95
Leu Pro Gly Gln Val Thr Ile Arg Val Arg Val Pro Tyr Arg Val Val

```

```

          100          105          110
Gly Leu Val Val Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln
          115          120          125
Gln Thr Asn Thr Tyr Ile Ile Thr Pro Ser Arg Asp Arg Asp Pro Val
          130          135          140
Phe Glu Ile Thr Gly Ala Pro Gly Asn Val Glu Arg Ala Arg Glu Glu
145          150          155          160
Ile Glu Thr His Ile Ala Val Arg Thr Gly Lys Ile Leu Glu Tyr Asn
          165          170          175
Asn Glu Asn Asp Phe Leu Ala Gly Ser Pro Asp Ala Ala Ile Asp Ser
          180          185          190
Arg Tyr Ser Asp Ala Trp Arg Val His Gln Pro Gly Cys Lys Pro Leu
          195          200          205
Ser Thr Phe Arg Gln Asn Ser Leu Gly Cys
          210          215

```

<210> 2243

<211> 384

<212> DNA

<213> Homo sapiens

<400> 2243

```

gaattcagca tttaaagtgc actcgttggc atgcaatttg ctgtcatgaa aacgactgtg
60
gattcatttc ctggtaagaa tcttctgact tattgagctg catgtcagaa gcaaaaagca
120
aaaaaaccaa atatgtacat aaaacagtgt tatcattcct taaaagagaa ggaaaataaa
180
tccctaaata atgtggactg gaacacagaa atccaaggct ggccgcacgg gtcttggtg
240
ggatggcatc cggggagctg ctgctgggga cgtgcttgcc ggcacaggtc aggggagccg
300
ggttctgcct cctccttgcc cactctcttt gcgccctccc tgtgctcgcc tgtcttgttt
360
tacctcccat cctgggcct tgga
384

```

<210> 2244

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2244

```

Met Gly Gly Lys Thr Arg Gln Ala Ser Thr Gly Arg Ala Gln Arg Glu
1      5      10      15
Trp Ala Arg Arg Gln Asn Pro Ala Pro Leu Thr Cys Ala Gly Lys
20     25     30
His Val Pro Ser Ser Ser Ser Pro Asp Ala Ile Pro Ala Arg Thr Arg
35     40     45
Ala Ala Ser Leu Gly Phe Leu Cys Ser Ser Pro His Tyr Leu Gly Ile
50     55     60
Tyr Phe Pro Ser Leu Leu Arg Asn Asp Asn Thr Val Leu Cys Thr Tyr
65     70     75     80
Leu Val Phe Leu Leu Phe Ala Ser Asp Met Gln Leu Asn Lys Ser Glu

```

85 90 95
 Asp Ser Tyr Gln Glu Met Asn Pro Gln Ser Phe Ser
 100 105

<210> 2245
 <211> 632
 <212> DNA
 <213> Homo sapiens

<400> 2245
 acgcgtgcga ttaccgtcaa ggctgggtgtg gtgagcgctg atctgcacga gcggacgtct
 60
 tcgagagaag aggtcggacg cgagaggctc aactatgggtc acaccttggc ccacgtatt
 120
 gaggcccaca agcatttcac gtggcgctcat ggcgaggctg acgcggtggg catggtgttt
 180
 gcggccgaac tgtcgcaccg gtacctggga ctgtccgatg aggtcgttgc gcgcaccgcg
 240
 actatcctgt ctgagatcgg attgcctgtt acctgtgacg agattaagtg ggcagatctg
 300
 cgcaagacga tgaacgtgga caagaaaacc agggtagacc cgcagaccgg gcgtcaagtg
 360
 ttgcggtttg tcggtattca caaaccgggt caggctcgcca tgatcgtcga ccctgacgag
 420
 gccgcttttag ccgagtgcga cgaccgggtg tccgcacggg aaaaacgttc ggaaatgaac
 480
 atgtggctgc gggtcagtcg gcattcaggc ctccgtgacg ccgtcgaccc caagtgatgt
 540
 gacgattcgg gaaatatctt gttgggcact cttgagcctc gcctgattcc ccataccgga
 600
 cttaagttca gtatcgacgg catgaatccg ga
 632

<210> 2246
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 2246
 Thr Arg Ala Ile Thr Val Lys Ala Gly Val Val Ser Ala Asp Leu His
 1 5 10 15
 Glu Arg Thr Ser Ser Arg Glu Glu Val Gly Arg Glu Arg Leu Asn Tyr
 20 25 30
 Gly His Thr Leu Ala His Ala Ile Glu Ala His Lys His Phe Thr Trp
 35 40 45
 Arg His Gly Glu Ala Asp Ala Val Gly Met Val Phe Ala Ala Glu Leu
 50 55 60
 Ser His Arg Tyr Leu Gly Leu Ser Asp Glu Val Val Ala Arg Thr Arg
 65 70 75 80
 Thr Ile Leu Ser Glu Ile Gly Leu Pro Val Thr Cys Asp Glu Ile Lys
 85 90 95
 Trp Ala Asp Leu Arg Lys Thr Met Asn Val Asp Lys Lys Thr Arg Val
 100 105 110
 Asp Pro Gln Thr Gly Arg Gln Val Leu Arg Phe Val Gly Ile His Lys

115 120 125
 Pro Gly Gln Val Ala Met Ile Val Asp Pro Asp Glu Ala Ala Leu Ala
 130 135 140
 Glu Cys Tyr Asp Arg Cys Ser Ala Arg
 145 150

<210> 2247
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 2247
 gggcggttcgc ctccaggggtt ctccccgaca ctggatgccca acctgcccag gggcagaagg
 60
 gaggttgggc gtggggagtg ccgggtacag tcagagttgc caggacagtt tggagcagtg
 120
 cctcttaatc ttggccgcac agcacctggg agctttaaat agacccccac gccctgggcg
 180
 cccccaccgc tgaccacccc gatctcagct ctgcctttcc cgctctctg ctgggttgca
 240
 taagccagcg attcccaacc ccggctgtac ctggaagcta cccaggagc ttctggagaa
 300
 tgtgccgtgt gagccatccc cctg
 324

<210> 2248
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2248
 Met Ala His Thr Ala His Ser Pro Glu Ala Pro Gly Val Ala Ser Arg
 1 5 10 15
 Tyr Ser Arg Gly Trp Glu Ser Leu Ala Tyr Ala Thr Gln Gln Arg Gly
 20 25 30
 Gly Lys Gly Arg Ala Glu Ile Gly Trp Val Ser Gly Gly Ala Gln
 35 40 45
 Gly Val Gly Val Tyr Leu Lys Leu Pro Gly Ala Val Arg Pro Arg Leu
 50 55 60
 Arg Gly Thr Ala Pro Asn Cys Pro Gly Asn Ser Asp Cys Thr Arg His
 65 70 75 80
 Ser Pro Arg Pro Thr Ser Leu Leu Pro Leu Gly Arg Leu Ala Ser Ser
 85 90 95
 Val Gly Glu Asn Pro Gly Gly Glu Arg
 100 105

<210> 2249
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 2249
 gaaaaccgga taacaggggtg tatacaagcc tctgagttct gggagcaaca accagctcaa
 60

cccgcaaggg aaagtgagaa agcaattaag ttgggaaccg cgggggttttc ccattcccac
 120
 ggtggaaacc gcggccagtg aattgaaatc cgcttcctta aggcgaaatg ggcccttaaa
 180
 aggcaaggtc aaccgcccgc cagtgtgatg gaatttgcaa gaattcggtt tagcaccctc
 240
 ccggcttttc tcccgaccgc gtgcaggggtg ggctgcgctg ggcttgggag gaactgggag
 300
 ctgggggctc atgtcctgta taaaggggct gcaggggccc tgtctcccc cagaagactg
 360
 gccacatggg gacaggcctc ctgggggcag atct
 394

<210> 2250

<211> 104

<212> PRT

<213> Homo sapiens

<400> 2250

Met	Ser	Pro	Gln	Leu	Pro	Val	Pro	Pro	Arg	Pro	Ser	Ala	Ala	His	Pro
1			5					10						15	
Ala	Arg	Gly	Arg	Glu	Lys	Ser	Arg	Glu	Gly	Ala	Lys	Pro	Asn	Ser	Cys
		20						25					30		
Lys	Phe	His	His	Thr	Gly	Gly	Arg	Leu	Thr	Leu	Pro	Phe	Lys	Gly	Pro
		35					40					45			
Phe	Arg	Leu	Lys	Glu	Ala	Asp	Phe	Asn	Ser	Leu	Ala	Ala	Val	Ser	Thr
	50					55					60				
Val	Gly	Met	Gly	Lys	Pro	Arg	Gly	Ser	Gln	Leu	Asn	Cys	Phe	Leu	Thr
65					70					75				80	
Phe	Pro	Cys	Gly	Leu	Ser	Trp	Leu	Leu	Leu	Pro	Glu	Leu	Arg	Gly	Leu
			85					90						95	
Tyr	Thr	Pro	Cys	Tyr	Pro	Val	Phe								
			100												

<210> 2251

<211> 654

<212> DNA

<213> Homo sapiens

<400> 2251

acgcgtactt attcgccacc atgattatga ccagtgtttc cagtccgttc agttgttgca
 60
 gtggaatagt cagggttaaatt ttaatgtgac cgtttatcgc aatctgccga ccactcgcca
 120
 ttcaatcatg acttcgtgat aaaagattga gtgtgagggtt ataacgccga agcggtaaaa
 180
 attttaattt ttgccgtga ggggttgacc aagcgaagcg cggtaggttt tctgcttagg
 240
 agtttaataca tgtttcagac ttttatctct cgccataatt caaacttttt ttctgataag
 300
 ctggtttctca cttctgttac tccagcttct tcggcacctg ttttacagac acctaaagct
 360
 acatcgtcaa cgttatatatt tgatagtttg acgggttaatg ctggtaatgg tggttttctt
 420

cattgcattc agatggatac atctgtcaac gccgctaatac aggttggttc tgttggtgct
 480
 gatattgctt ttgatgccga ccctaaattt tttgcctggt tggttcgctt tgagtcttct
 540
 tcggttccga ctaccctccc gactgcctat gatgtttatc ctttggtatgg tcgccatgat
 600
 ggtggttatt ataccgtcaa ggactgtgtg actattgacg tccttcctcg tacg
 654

<210> 2252
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 2252
 Met Phe Gln Thr Phe Ile Ser Arg His Asn Ser Asn Phe Phe Ser Asp
 1 5 10 15
 Lys Leu Val Leu Thr Ser Val Thr Pro Ala Ser Ser Ala Pro Val Leu
 20 25 30
 Gln Thr Pro Lys Ala Thr Ser Ser Thr Leu Tyr Phe Asp Ser Leu Thr
 35 40 45
 Val Asn Ala Gly Asn Gly Gly Phe Leu His Cys Ile Gln Met Asp Thr
 50 55 60
 Ser Val Asn Ala Ala Asn Gln Val Val Ser Val Gly Ala Asp Ile Ala
 65 70 75 80
 Phe Asp Ala Asp Pro Lys Phe Phe Ala Cys Leu Val Arg Phe Glu Ser
 85 90 95
 Ser Ser Val Pro Thr Thr Leu Pro Thr Ala Tyr Asp Val Tyr Pro Leu
 100 105 110
 Asp Gly Arg His Asp Gly Gly Tyr Tyr Thr Val Lys Asp Cys Val Thr
 115 120 125
 Ile Asp Val Leu Pro Arg Thr
 130 135

<210> 2253
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 2253
 ggatcctgct gggcctcttt tacgtgatgt tgaccagcc gctggtgccc attattcgcg
 60
 cactgagcac cagcaagcag gcccgcttgg attgcccacc gggtcacgaa aacgatgaaa
 120
 tcggcgtatt ggtcaacgtc gcccaaccagc aattcgacaa tatggaaacc gaaatcgagc
 180
 agcgccgcca cgccgaggac cgcctcaccg aatacctggg ccaactggaa gatatcgctt
 240
 ccgcacgcac cctggagctc aaggccagca accaacgctt gagccaatcc aacgatgagc
 300
 tggaagcggc aaagttgacc gccttgg
 327

<210> 2254

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2254

```

Met Leu Thr Gln Pro Leu Val Arg Ile Ile Arg Ala Leu Ser Thr Ser
 1           5           10           15
Lys Gln Ala Arg Leu Asp Cys Pro Pro Gly His Glu Asn Asp Glu Ile
      20           25           30
Gly Val Leu Val Asn Val Ala Asn Gln Gln Phe Asp Asn Met Glu Thr
      35           40           45
Glu Ile Glu Gln Arg Arg His Ala Glu Asp Arg Leu Thr Glu Tyr Leu
      50           55           60
Gly Gln Leu Glu Asp Ile Val Ser Ala Arg Thr Leu Glu Leu Lys Ala
65           70           75           80
Ser Asn Gln Arg Leu Ser Gln Ser Asn Asp Glu Leu Glu Ala Ala Lys
      85           90           95
Leu Thr Ala Leu
      100

```

<210> 2255

<211> 357

<212> DNA

<213> Homo sapiens

<400> 2255

```

nngctagcac atgagaagtg tgaagtttat actttgcttg ggcgatcacg ccgttttcca
60
aatatggctc atgcaacttc tggccaaagg gggtcacattg agcgtgctgc tatcaatgct
120
cctgtacagg gcagtgcagc tgatgttgct atgtgtgcaa tgcttgagat agacaggaat
180
actcgtctta aggagcttgg ttggacgcta ctcttgacagg tgcattgatga agtgatactg
240
gaagggcctt cagagtctgc ggagtnggcc aagtcacatag ttgttgagtg catgtctaag
300
cccttctatg gcaccaatat cctgagggtc gaccttgctg ttgatgccaa gtgtgca
357

```

<210> 2256

<211> 119

<212> PRT

<213> Homo sapiens

<400> 2256

```

Xaa Leu Ala His Glu Lys Cys Glu Val Tyr Thr Leu Leu Gly Arg Ser
 1           5           10           15
Arg Arg Phe Pro Asn Met Ala His Ala Thr Ser Gly Gln Arg Gly His
      20           25           30
Ile Glu Arg Ala Ala Ile Asn Ala Pro Val Gln Gly Ser Ala Ala Asp
      35           40           45
Val Ala Met Cys Ala Met Leu Glu Ile Asp Arg Asn Thr Arg Leu Lys
      50           55           60
Glu Leu Gly Trp Thr Leu Leu Leu Gln Val His Asp Glu Val Ile Leu

```

```

65              70              75              80
Glu Gly Pro Ser Glu Ser Ala Glu Xaa Ala Lys Ser Ile Val Val Glu
              85              90              95
Cys Met Ser Lys Pro Phe Tyr Gly Thr Asn Ile Leu Arg Val Asp Leu
              100              105              110
Ala Val Asp Ala Lys Cys Ala
              115

```

<210> 2257
 <211> 626
 <212> DNA
 <213> Homo sapiens

```

<400> 2257
nnaatgacaa aaaatatgaa ccaaaatagt gacagtggca gtacaaataa ctataaaagc
60
ctgaaaccta aattagaaaa tctgagttct ttaccaccag attctgacag aacatcagaa
120
gtatatctac atgaagaatt acagcaggac atgcaaaagt ttaagaatga ggtcaacaca
180
ttagaagaag agttcctggc tttgaagaaa gaaaatgttc aacttcataa agagggtgaa
240
gaagaaatgg agaagcacag aagtaatagc acagaattat caggaaccct aactgatggg
300
actactgttg gcaatgatga tgatggacta aatcagcaga ttcctaggaa ggaaaatgaa
360
gagcatgaca ggctgcaga taaaacagct aatgaaaaga acaagggtcaa aaaccaaata
420
tactctgagg ctgactttgc tgactcaatg gagccatctg aaatagcctc agaggattgt
480
gaattgtctc actctgttta tgagaatttt atgttgctga ttgaacaact tagaatggag
540
tataaaggta ggaccactgc ataaatgcaa ggccttttga tgtatcctgc agtaatgtgt
600
gtatacattg ctgagaactg acgcgt
626

```

<210> 2258
 <211> 187
 <212> PRT
 <213> Homo sapiens

```

<400> 2258
Xaa Met Thr Lys Asn Met Asn Gln Asn Ser Asp Ser Gly Ser Thr Asn
1              5              10              15
Asn Tyr Lys Ser Leu Lys Pro Lys Leu Glu Asn Leu Ser Ser Leu Pro
20              25              30
Pro Asp Ser Asp Arg Thr Ser Glu Val Tyr Leu His Glu Glu Leu Gln
35              40              45
Gln Asp Met Gln Lys Phe Lys Asn Glu Val Asn Thr Leu Glu Glu Glu
50              55              60
Phe Leu Ala Leu Lys Lys Glu Asn Val Gln Leu His Lys Glu Val Glu
65              70              75              80
Glu Glu Met Glu Lys His Arg Ser Asn Ser Thr Glu Leu Ser Gly Thr

```

85							90						95			
Leu	Thr	Asp	Gly	Thr	Thr	Val	Gly	Asn	Asp	Asp	Asp	Gly	Leu	Asn	Gln	
100							105						110			
Gln	Ile	Pro	Arg	Lys	Glu	Asn	Glu	Glu	His	Asp	Arg	Pro	Ala	Asp	Lys	
115							120						125			
Thr	Ala	Asn	Glu	Lys	Asn	Lys	Val	Lys	Asn	Gln	Ile	Tyr	Pro	Glu	Ala	
130							135						140			
Asp	Phe	Ala	Asp	Ser	Met	Glu	Pro	Ser	Glu	Ile	Ala	Ser	Glu	Asp	Cys	
145							150						155			
Glu	Leu	Ser	His	Ser	Val	Tyr	Glu	Asn	Phe	Met	Leu	Leu	Ile	Glu	Gln	
165							170						175			
Leu	Arg	Met	Glu	Tyr	Lys	Gly	Arg	Thr	Thr	Ala						
180							185									

<210> 2259

<211> 425

<212> DNA

<213> Homo sapiens

<400> 2259

acgcgctcaca atgataaaagc cattatatc atcaagaggt aaatcattct tgaaattttc
60

taaaggtaaa cacttacgtg taacacgttc atcaaagaat tcaggaacca catattctgg
120

acgggtcatct acgactgtaa cacgacagcc aataaacaat agcaaatacag taatagctcg
180

gctaacatga cctgcaccta atacgagaac tgacggatca ttttctacag gttgtacgaa
240

acactccatt tcgcctacca tgcatagaga attcagcttt gctttatcta cagtaaattcc
300

ttcaatagga gttccgtata gaacccttcc atcttcagca taaatagtct tatcccocttg
360

acgaggaccg gatagaacgg taaccattac ggtagcttca gtaacctgta gacgattttt
420

catqa

425

<210> 2260

<211> 141

<212> PRT

<213> Homo sapiens

<400> 2260

Met Lys Asn Arg Leu Gln Val Thr Glu Ala Thr Val Met Val Thr Val
1 5 10 15

Leu Ser Gly Pro Arg Gln Gly Asp Lys Thr Ile Tyr Ala Glu Asp Gly
20 25 30

Arg Val Leu Tyr Gly Thr Pro Ile Glu Gly Phe Thr Val Asp Lys Ala
35 40 45

Lys Leu Asn Ser Leu Cys Met Val Gly Glu Met Glu Cys Phe Val Gln
50 55 60

Pro Val Glu Asn Asp Pro Ser Val Leu Val Leu Gly Ala Gly His Val
65 70 75 80

Ser Arg Ala Ile Thr Asp Leu Leu Leu Phe Ile Gly Cys Arg Val Thr

					85				90					95		
Val	Val	Asp	Asp	Arg	Pro	Glu	Tyr	Val	Val	Pro	Glu	Phe	Phe	Asp	Glu	
			100					105					110			
Arg	Val	Thr	Arg	Lys	Cys	Leu	Pro	Leu	Glu	Asn	Phe	Lys	Asn	Asp	Leu	
			115				120					125				
Pro	Leu	Asp	Glu	Tyr	Asn	Gly	Phe	Ile	Ile	Val	Thr	Arg				
			130			135					140					

```
<210> 2261
<211> 660
<212> DNA
<213> Homo sapiens
```

```
<400> 2261
ngctagctgc tgctcctgag gatcggccgc agaataattgc tgccgatctg tccgggttgc
60
ttgagcccaa ggcgcaggtc gatgtgtccg ggcaccgcgc gcgttgccgtt gggagcatag
120
tgtcgggtgca cgctgaccga gaggtccgtg cggagagtac tcccgatgat atttgccggc
180
agctcgatgc cgtggccgcc atgatggccc ttgtctatgg gtcgaatgtg actattcccc
240
acgatgccgg gaggtctctc gacaagcttc actgaacggt gttcaattgg tcccaacggc
300
tgcccatgtg ggcagccgct ctatctcgtc atgggaagga acccgatgtc gtcacgcaat
360
ggtttccagg ccaccgacct ggctcttata gcggtctttg cagccctcat tgctgtgcta
420
gccgtcatcc cgccgatgtt catgggtgggg gcggtccctt ttgcccttca gatggttgcc
480
gtcatgctgg cgccgatggt gctgggaagt atccgtggcg gatgcgcggt aggcttgtat
540
atccttgtcg gcgcgctggg gctgcccgtc ttcagcggtg ggtctagcgg gattggcgct
600
ctggtggggtc ccaactggtg gtatctatgg ggatggctga tcggcgcttt cgtggcgggt
660
```

```
<210> 2262
<211> 139
<212> PRT
<213> Homo sapiens
```

<400> 2262																
Met	Pro	Gly	Gly	Ser	Ser	Thr	Ser	Phe	Thr	Glu	Arg	Cys	Ser	Ile	Gly	
1				5					10					15		
Pro	Asn	Gly	Cys	Pro	Cys	Gly	Gln	Pro	Leu	Tyr	Leu	Val	Met	Gly	Arg	
			20					25					30			
Asn	Pro	Met	Ser	Ser	Arg	Asn	Gly	Phe	Gln	Ala	Thr	Asp	Leu	Ala	Leu	
		35					40					45				
Ile	Ala	Val	Phe	Ala	Ala	Leu	Ile	Ala	Val	Leu	Ala	Val	Ile	Pro	Pro	
	50					55					60					
Met	Phe	Met	Val	Gly	Ala	Val	Pro	Phe	Ala	Leu	Gln	Met	Val	Ala	Val	
65					70					75					80	
Met	Leu	Ala	Pro	Met	Val	Leu	Gly	Ser	Ile	Arg	Gly	Gly	Cys	Ala	Val	

[illegible]

```
<210> 2263
<211> 491
<212> DNA
<213> Homo sapiens
```

```

<400> 2263
naccggttcc cggtcgaccg aggcaaaggc aaaagtaagc aggggtgcccg tagtccccgt
60
tcccaccgcg gtatggctgg gtcactgctg acagatggcg tccccctgct gatctttccg
120
gagggcaccc ggtctcgcac cggcgcaatg ggcaccttca aacctggggc tgccgcattg
180
gctatttcac gtgggggttcc gggtatcccg attgctttag taggagcatg ggcggctatg
240
ccgtcccgagc aagccagggt accaaaagga cgtccattgg tccacgtggc tattggacac
300
cctatggacc ctgttccccg cgagatcgcc caccaattct ccgaacggat tcgtcgccag
360
gtcattgagt tgcacgacca aaccgcccgc gcctacggca tgccaaccct tgacgaatac
420
ggacgccacc gcgcgctaag ccaggcctcc gagagcggcg acaccgcatc caccaaccac
480
tcgacgtgca c
491

```

```
<210> 2264
<211> 163
<212> PRT
<213> Homo sapiens
```

```

<400> 2264
Xaa Ala Phe Pro Val Asp Arg Gly Lys Gly Lys Ser Lys Gln Gly Ala
 1             5             10             15
Arg Ser Pro Arg Ser His Arg Gly Met Ala Gly Ser Leu Leu Thr Asp
          20             25             30
Gly Val Pro Leu Leu Ile Phe Pro Glu Gly Thr Arg Ser Arg Thr Gly
          35             40             45
Ala Met Gly Thr Phe Lys Pro Gly Ala Ala Ala Leu Ala Ile Ser Arg
          50             55             60
Gly Val Pro Val Ile Pro Ile Ala Leu Val Gly Ala Trp Ala Ala Met
65             70             75             80
Pro Ser Glu Gln Ala Arg Leu Pro Lys Gly Arg Pro Leu Val His Val
          85             90             95
Ala Ile Gly His Pro Met Asp Pro Val Pro Gly Glu Ile Ala His Gln
          100             105             110
Phe Ser Glu Arg Ile Arg Arg Gln Val Ile Glu Leu His Asp Gln Thr

```

115 120 125
 Ala Arg Ala Tyr Gly Met Pro Thr Leu Asp Glu Tyr Gly Arg His Arg
 130 135 140
 Ala Leu Ser Gln Ala Ser Glu Ser Gly Asp Thr Ala Ser Thr Asn His
 145 150 155 160
 Ser Thr Cys

<210> 2265
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 2265
 ccattgggaat aggccaaacac ggatggatct actgtataac ttgcctgccca tcaggaaaga
 60
 gtcaacacgg cagacacatg ctggcagaaa ccctgctgga gttgcccctg agcattgatg
 120
 cataccaccc gagaggagga gagggtggtg ggagaaatca gatcagagtt caaaatgcac
 180
 cggaagggt cggaaatgta agactgcacc ttgcaggaac tgtcaatgcc actaccaata
 240
 tcactcactt acgtcaagca cttgagagca gctgcgaaca caattctctg actcctaacc
 300
 tttagcacgt gactgggacc actggaca
 328

<210> 2266
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2266
 Met Gly Ile Gly Gln His Gly Trp Ile Tyr Cys Ile Thr Cys Leu Pro
 1 5 10 15
 Ser Gly Lys Ser Gln His Gly Arg His Met Leu Ala Glu Thr Leu Leu
 20 25 30
 Glu Leu Pro Leu Ser Ile Asp Ala Tyr His Pro Arg Gly Gly Glu Gly
 35 40 45
 Gly Gly Arg Asn Gln Ile Arg Val Gln Asn Ala Pro Glu Gly Leu Gly
 50 55 60
 Asn Val Arg Leu His Leu Ala Gly Thr Val Asn Ala Thr Thr Asn Ile
 65 70 75 80
 Thr His Leu Arg Gln Ala Leu Glu Ser Ser Cys Glu His Asn Ser Leu
 85 90 95
 Thr Pro Asn Leu
 100

<210> 2267
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 2267

agatctatgc aggtagcgct ggtctccggg gggtaagttg tccactccct gtcagatggc
 60
 agaccatgga gggctaatagc aggctgggaa ggctaggcag agttcccaga aacagggtcac
 120
 cgagggagcc accactgaat tgcactctcg ctggggagtt aagccatata cccctaagac
 180
 agcagtgacc ggagtggcca atctgtacag ggacaggctc aaggccacag caactcaggg
 240
 gacagagatg gtgaagcagg catgtcctaa agcctccctt cttaaccctg accttgaagg
 300
 acaggaaaca agtcatttac gtatgttgta ggcctagagc aagggttgc agagatgggc
 360
 gtcaacgcgt
 370

<210> 2268

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2268

Met	Ala	Asp	His	Gly	Gly	Leu	Met	Gln	Ala	Gly	Lys	Ala	Arg	Gln	Ser
1				5				10						15	
Ser	Gln	Lys	Gln	Val	Thr	Glu	Gly	Ala	Thr	Thr	Glu	Leu	His	Ser	Arg
			20					25					30		
Trp	Gly	Val	Lys	Pro	Tyr	Pro	Pro	Lys	Thr	Ala	Val	Thr	Gly	Val	Ala
			35					40					45		
Asn	Leu	Tyr	Arg	Asp	Arg	Leu	Lys	Ala	Thr	Ala	Thr	Gln	Gly	Thr	Glu
			50				55					60			
Met	Val	Lys	Gln	Ala	Cys	Pro	Lys	Ala	Ser	Leu	Leu	Asn	Pro	Asp	Leu
65						70				75				80	
Glu	Gly	Gln	Glu	Thr	Ser	His	Leu	Arg	Met	Leu					
				85						90					

<210> 2269

<211> 507

<212> DNA

<213> Homo sapiens

<400> 2269

ctctccgacc gcgtcaaccc cggcaatatc cgcaagttcg acgaccagat cgaatcgatt
 60
 tgtaaggctg ccaccgagca cggtacgagc atccgaatcg gcgtgaatgc tgggtctctc
 120
 gacaaacgtc tgcttgacaa atacggagcc ccgaccgccg aggctatggt ggagtcggca
 180
 ctgtgggagg ccagcctctt tgagcaatac ggattccggg atttcaaat ctcggtgaag
 240
 caccacgacc cggtcgtcat gatccgtgcc tatgaacagc tcgccgcaa atgcgattat
 300
 ccccttcatt tgggcgttac tgaggctggt ccggccttcc aaggcaccat caagtcggcg
 360
 gtggccttcg ggcattctct tgccgagggc atcggcgata ccatacgcgt ctcttctgctg
 420

gctgatccgg tcgaggaagt caaggtgggt atcaagatcc tggagtcgct caacctacgt
 480
 cctcgaggtc tagagatcgt ctcctgc
 507

<210> 2270

<211> 169

<212> PRT

<213> Homo sapiens

<400> 2270

Leu	Ser	Asp	Arg	Val	Asn	Pro	Gly	Asn	Ile	Arg	Lys	Phe	Asp	Asp	Gln
1				5					10					15	
Ile	Glu	Ser	Ile	Cys	Lys	Ala	Ala	Thr	Glu	His	Gly	Thr	Ser	Ile	Arg
			20					25					30		
Ile	Gly	Val	Asn	Ala	Gly	Ser	Leu	Asp	Lys	Arg	Leu	Leu	Asp	Lys	Tyr
		35					40					45			
Gly	Ala	Pro	Thr	Ala	Glu	Ala	Met	Val	Glu	Ser	Ala	Leu	Trp	Glu	Ala
	50					55					60				
Ser	Leu	Phe	Glu	Gln	Tyr	Gly	Phe	Arg	Asp	Phe	Lys	Ile	Ser	Val	Lys
65				70					75					80	
His	His	Asp	Pro	Val	Val	Met	Ile	Arg	Ala	Tyr	Glu	Gln	Leu	Ala	Ala
				85				90						95	
Lys	Cys	Asp	Tyr	Pro	Leu	His	Leu	Gly	Val	Thr	Glu	Ala	Gly	Pro	Ala
			100					105					110		
Phe	Gln	Gly	Thr	Ile	Lys	Ser	Ala	Val	Ala	Phe	Gly	His	Leu	Leu	Ala
		115					120					125			
Glu	Gly	Ile	Gly	Asp	Thr	Ile	Arg	Val	Ser	Leu	Ser	Ala	Asp	Pro	Val
	130					135					140				
Glu	Glu	Val	Lys	Val	Gly	Ile	Lys	Ile	Leu	Glu	Ser	Leu	Asn	Leu	Arg
145				150					155					160	
Pro	Arg	Gly	Leu	Glu	Ile	Val	Ser	Cys							
				165											

<210> 2271

<211> 573

<212> DNA

<213> Homo sapiens

<400> 2271

nncgccgacc eggacttcca ggagatgtta cgtgcgctgg tggacttcga cgaagacatc
 60
 ccgatgggtcg acgaaagcct ggaacagttc gccagttgc tcaaaacccg cacctcggaa
 120
 gaaggcatgg cgccgttgac ctcggacgcg gtggcgcggt tggccactta cagcgcacgg
 180
 ctggcgggacc accaagggcg tgtgtccgcg cgcattggcg acttggtcca actggtcagc
 240
 gaggcggact ttatccgcca cctggcgggc gacgagatga ctgatgccgg ccatatcgaa
 300
 cgggcgctca aggccaaggc cacgcgtacc gggcgtgtat cggcgcggat tctcgacgac
 360
 atgctcgctg gggtcacct gatcgacacc gccgggtgcgg ccgtgggcaa atgcaacggg
 420

ctgacggtgc tggaagtcgg cgattcggcg ttcggcgtgc cggcgcgat ttccgccacg
 480
 gtgtaccgcg gcggcagcgg cattgtcgac atcgagcgcg aagttaacct cggccagccg
 540
 atccactcca agggcgtgat gacccctacc ggt
 573

<210> 2272

<211> 191

<212> PRT

<213> Homo sapiens

<400> 2272

Xaa	Ala	Asp	Pro	Asp	Phe	Gln	Glu	Met	Leu	Arg	Ala	Leu	Val	Asp	Phe
1				5					10					15	
Asp	Glu	Asp	Ile	Pro	Met	Val	Asp	Glu	Ser	Leu	Glu	Gln	Phe	Ala	Gln
			20					25					30		
Leu	Leu	Lys	Thr	Arg	Thr	Ser	Glu	Gly	Met	Ala	Pro	Leu	Thr	Ser	
		35					40					45			
Asp	Ala	Val	Ala	Arg	Leu	Ala	Thr	Tyr	Ser	Ala	Arg	Leu	Ala	Asp	His
	50					55					60				
Gln	Gly	Arg	Val	Ser	Ala	Arg	Ile	Gly	Asp	Leu	Phe	Gln	Leu	Val	Ser
65					70					75				80	
Glu	Ala	Asp	Phe	Ile	Arg	His	Leu	Ala	Gly	Asp	Glu	Met	Thr	Asp	Ala
				85					90					95	
Gly	His	Ile	Glu	Arg	Ala	Leu	Lys	Ala	Lys	Ala	Thr	Arg	Thr	Gly	Arg
			100					105					110		
Val	Ser	Ala	Arg	Ile	Leu	Asp	Asp	Met	Leu	Ala	Gly	Val	Ile	Leu	Ile
		115					120					125			
Asp	Thr	Ala	Gly	Ala	Ala	Val	Gly	Lys	Cys	Asn	Gly	Leu	Thr	Val	Leu
	130					135					140				
Glu	Val	Gly	Asp	Ser	Ala	Phe	Gly	Val	Pro	Ala	Arg	Ile	Ser	Ala	Thr
145					150					155				160	
Val	Tyr	Pro	Gly	Gly	Ser	Gly	Ile	Val	Asp	Ile	Glu	Arg	Glu	Val	Asn
				165					170					175	
Leu	Gly	Gln	Pro	Ile	His	Ser	Lys	Gly	Val	Met	Ile	Leu	Thr	Gly	
			180					185						190	

<210> 2273

<211> 4355

<212> DNA

<213> Homo sapiens

<400> 2273

tctttccagc atgcctccgg cttcttgggg gaacacagtc ccggtggtca gaggtcctgc
 60
 aggggaggcc tctctctgga acgcctaccc aactccatcg cctcccgctt ccgcctgaca
 120
 gagagggagg aggaagtgat cacctgtttt gagagggcct cctggatcgc tcaggtgttc
 180
 ctgcaggaat tggagaagac cacaaataac agcacgtcga ggcattctgaa aggctgtcac
 240
 ccgcttgact atgagctcac ctacttcctg gaagctgcc tccagagcgc ctatgtgaaa
 300

aacctgaaga aggggaacat cgtgaagggc atgagagagc tccgggaggt gctgcggact
360
gtggagacca aagcaactca gaacttcaaa gtgatggcgg ccaagcacct ggcgggggtc
420
ctgctgcact ccctgagtgg agtgctactg gagccccctg tcccaccctc tgcctgagtt
480
atgggcaagg aggagagttc tttcgccact caggccctgc ggaaacctca cctctatgaa
540
ggagacaacc tctactgccc caaggacaac atcgaggaag ccctcctgct cctcctcatc
600
agcgaatcca tggcaactcg agatgtggtg ctgagccggg tgccggagca ggaggaggac
660
cggacagtga gcttgcagaa tgccgcagcc atctatgacc tcttgagcat cacgttgggc
720
agaaggggac agtacgtcat gctctcggag tgccctggagc gagccatgaa gtttgcgttt
780
ggagaatttc acctttggtc ccaggtggcc ctctccatgg tggcttgtgg gaagtcagcc
840
tacgtgtgt ccctgctgcg ggagtgtgtg aagttgcggc cctcggacc caccgtgccc
900
ctgatggccg cgaaggtctg catcgggtcc ctctcgtggc tagaggaagc agagcacttt
960
gccatgatgg tgatcagcct cggagaggaa gccggggagt tcctcccaa gggctacctg
1020
gctctgggtc tcacctatag cctgcaggcc accgacgcca ccctgaagtc caagcaagat
1080
gaattgcacc ggaaggcact gcagacgtg gagagggctc agcagctggc gccagtgac
1140
ccccaggta tcctctatgt ctgctgcag ctggccctcg tccgacagat ctccagtgc
1200
atggagcagc tgcaggaggc cctgaaggta cgcaaggatg atgcccacgc cctccacctg
1260
ctggcactgc tcttctctgc ccagaagcac caccagcatg ccctggatgt tgtcaacatg
1320
gccatcaccg agcaccctga gaacttcaac ctgatgttca ccaagggtgaa gctggagcag
1380
gtgctgaaag gccagagga agccctcgtg acctgcagac aagtgtgag gctgtggcag
1440
accctgtaca gcttctccca gctgggaggc ctagaaaagg atggcagctt cggtgagggc
1500
ctcaccatga agaagcagag tggcatgcac ctgactttgc ctgatgcca tgatgcagac
1560
tctggctccc ggcgggcttc gtccatcgcc gcctcccggc tggaggaggc catgtcagag
1620
ctgactatgc cctcttcggt cctgaagcag ggccccatgc agctgtggac cacgtggaa
1680
cagatctggc tgcaggctgc tgagctgttc atggagcagc agcacctcaa ggaagcaggt
1740
ttctgcatcc aggaggcggc gggcctcttc ccacttctc actcagtact ctatatgcgg
1800
ggccggctgg ctgaggtgaa gggcaacctg gaggaggcca agcagctgta caaggaggc
1860
ctcacggtga acccagatgg cgtgcgcatc atgcatagcc tgggtctgat gctgagtcgg
1920

ctggggccaca agagcttggc ccagaaggtg cttcgtgatg ccgtggagag gcagagtacg
1980
tgccacgagg cgtggcaggg cctgggcgag gtgctgcagg cccagggcca gaacgaggct
2040
gccgttgact gcttccctcac cgcccttgag ctggaggcca gcagccctgt actgcccttc
2100
tccatcatcc ccagagagct ctgacgacgc tgcagccgca gggagggagg ggctggccag
2160
agggagagggc agcagggaac gtgggtcagg gtggggcaac agtggcatca ggtgcggggc
2220
ctcagggaaa tacatcttta gtgaacgcct ctgcagctgc agccctcgtt ctcttggtg
2280
ggccaagagg gccttccctg atttctttgt tgggtgccttg ggaaacagtc tgacttgaac
2340
cctaagtgcc tttggagagt tttgtggtga ccagacttgc tccccaaagag ctgggcagcg
2400
gggagcctca cagctgtcct tcaccctcac ccatgcctct ggcttggggg ctgggtgggg
2460
ggttctcact cccactctc agcacagtac agacttcttg atctctctca ggtcttgccc
2520
agggcgggtca caatgtgaag aaactgcggg caagtgggaa gactatgaga tttctgggtt
2580
cccttctcag acttgaggtt agtagatgat tcctgcattg cccctgcttg cctctgaga
2640
ccagctgggc ccaccttgc tctttccccc tgctaccaag tgcttttggg gcctctgggg
2700
tctgaccagg ggtactgagc accggcccta acacttccat ctccaccac cccatctccc
2760
tggcgatgtg ctccagccca agcagcctcc gtaggcttta gatcctgtgg ttgccagatc
2820
cagtcctttc taataccctg agtcaacaca ttactcctgc aggtcttagg ctacaatgca
2880
ggtccttga gggccaccaa catggaggta ggcagtttct aggactgtcc ccagtacatc
2940
tcaccacca cagccctttt tttgccttga ttcgagcctc accctggcct tttggcttcc
3000
cctgcctgag agagacctga ggaggggaca gagcccagcc cctctcctgt ggctgagcag
3060
gcctctgtgt ccatgacacc tgtcttccgg gcctgggggc tgtgggtgta tgtcctccct
3120
actggcttcc ccggccctg ctgcatgatg ctcttggaa ctttcccaa ggagtcagtc
3180
ccccaggcct atcaggggat ccttttgtat ctgcactttg ggtttttagtt tcaaagctcc
3240
atcaggtaca gcttgcattt caggatgtgt ggaaagctcg ggtgagggct gccctgggtc
3300
atcatagctc caccttcctc ggaaggagtg ggctgttggg gacccccat ccatggcaca
3360
ctagctcagc actgcatttc ccgagatgat tcccaagaca gctgggtgcct cctggctttc
3420
ctgtgccagg ccaaggggca ccacagagga ccctggatcc tttgcctctt cttgggtgaa
3480
ggatctctat gtatgtgtgt atataaatat agttttttat ctatatatat aaaatagaga
3540

tctatttttt ttctggaatt ctgtagaaa agtaaagaaa aagcaaatgc tgttggttta
 3600
 tctcaggggtg cccaaagtgg ttatagtcaa tttttggtac taggaaaggc acccaatgca
 3660
 tttcctgact ttttaagcatt tccttggttg aagcagcaga gggccaggcc aagttgctga
 3720
 cagtgaacttt gcaggttgaa taaagaaacc cttggagggg aagcaggctt gtctgaagca
 3780
 gcatgtatat tcaactgggca tgtagctccc acaccagcct tgagccaggc cctggacagg
 3840
 aggggctggt gcaggatgag ggaggccaga gaaggcatcg aagccaagac ctgggcccag
 3900
 ctggggaggg atgtgggaaa ggaaggatgg gagggaggac cctctgggaa aatgtggatt
 3960
 tgagctggtg agagtgttgc taaggctggg ctaaagcctg gagagggtag gaggaggcaa
 4020
 gaggggtcca ggcagggtg atcctggcct ctgacctgtc cagggcgacc cctgaagccc
 4080
 ctgtgcctc tgggcattgc tgggagaggc caaggcagga ctcacgtctg aacagagatc
 4140
 ccctcgggca ttgctgatgg gccaccttca gctgcaggga agaagcctag gagaggaggc
 4200
 atgggagggga cctgggcctt gttcagattg gccacctctg ctgagaagtc cataccagta
 4260
 caccctaat aagttatgcc acataccaac gtactgtgga tattataacc tgcattaaaa
 4320
 caactctaaa gaacgctgct catttaaaaa aaaaa
 4355

<210> 2274

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2274

Ser	Phe	Gln	His	Ala	Ser	Gly	Phe	Leu	Gly	Glu	His	Ser	Pro	Gly	Gly
1				5					10					15	
Gln	Arg	Ser	Cys	Arg	Gly	Gly	Leu	Ser	Leu	Glu	Arg	Leu	Pro	Asn	Ser
			20					25					30		
Ile	Ala	Ser	Arg	Phe	Arg	Leu	Thr	Glu	Arg	Glu	Glu	Glu	Val	Ile	Thr
			35				40					45			
Cys	Phe	Glu	Arg	Ala	Ser	Trp	Ile	Ala	Gln	Val	Phe	Leu	Gln	Glu	Leu
	50					55				60					
Glu	Lys	Thr	Thr	Asn	Asn	Ser	Thr	Ser	Arg	His	Leu	Lys	Gly	Cys	His
65				70					75					80	
Pro	Leu	Asp	Tyr	Glu	Leu	Thr	Tyr	Phe	Leu	Glu	Ala	Ala	Leu	Gln	Ser
				85				90					95		
Ala	Tyr	Val	Lys	Asn	Leu	Lys	Lys	Gly	Asn	Ile	Val	Lys	Gly	Met	Arg
			100					105					110		
Glu	Leu	Arg	Glu	Val	Leu	Arg	Thr	Val	Glu	Thr	Lys	Ala	Thr	Gln	Asn
			115				120					125			
Phe	Lys	Val	Met	Ala	Ala	Lys	His	Leu	Ala	Gly	Val	Leu	Leu	His	Ser
	130					135					140				
Leu	Ser	Gly	Val	Leu	Leu	Glu	Pro	Pro	Val	Pro	Pro	Ser	Ala		

145

150

155

<210> 2275

<211> 608

<212> DNA

<213> Homo sapiens

<400> 2275

ctcaagtaca aaaagcatca tatcaacgca aacagcaata ccagcaacaa ctcctacctt
60
ccctgcatct gtcatcactt atgaaaccca aacagagaga tctagagcac aaacaatata
120
aaggagaaca ggagacctca aaaggaagaa ccaggctgtg ccccaacctt ttttccaaac
180
caaagttctg gcttcactac acccactgct atgacacctc ctgttctaac cacagccgaa
240
acttcagtca agcccagtgt ctctgcattc actcattccc caccagaaaa cacaactggg
300
atttcaagca caatcagttt tcattcaaga actcttaatc tgacagatgt gattgaagaa
360
ctagcccaag caagtactca gactttgaag agcacaattg cttctgaaac aactttgtcc
420
agcaaatacac accagagtac cacaactagg aaagcaatca ttagacactc aaccatacca
480
ccattcttga gcagcagtgc tactctaata ccagttccca tctcccctcc ctttactcag
540
agagcagtta ctgacaacgt ggcgactccc atttccgggc ttatgacaaa tacagtggtc
600
aagctgcg
608

<210> 2276

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2276

Ser	Thr	Asn	Asn	Thr	Lys	Glu	Asn	Arg	Arg	Pro	Gln	Lys	Glu	Glu	Pro
1				5				10					15		
Gly	Cys	Ala	Pro	Thr	Phe	Phe	Pro	Asn	Gln	Ser	Ser	Gly	Phe	Thr	Thr
			20					25					30		
Pro	Thr	Ala	Met	Thr	Pro	Pro	Val	Leu	Thr	Thr	Ala	Glu	Thr	Ser	Val
			35				40					45			
Lys	Pro	Ser	Val	Ser	Ala	Phe	Thr	His	Ser	Pro	Pro	Glu	Asn	Thr	Thr
			50			55				60					
Gly	Ile	Ser	Ser	Thr	Ile	Ser	Phe	His	Ser	Arg	Thr	Leu	Asn	Leu	Thr
65					70					75				80	
Asp	Val	Ile	Glu	Glu	Leu	Ala	Gln	Ala	Ser	Thr	Gln	Thr	Leu	Lys	Ser
				85					90					95	
Thr	Ile	Ala	Ser	Glu	Thr	Thr	Leu	Ser	Ser	Lys	Ser	His	Gln	Ser	Thr
			100				105						110		
Thr	Thr	Arg	Lys	Ala	Ile	Ile	Arg	His	Ser	Thr	Ile	Pro	Pro	Phe	Leu
			115				120						125		
Ser	Ser	Ser	Ala	Thr	Leu	Ile	Pro	Val	Pro	Ile	Ser	Pro	Pro	Phe	Thr

130	135	140
Gln Arg Ala Val Thr Asp Asn Val Ala Thr Pro	Ile Ser Gly Leu Met	
145	150	155
Thr Asn Thr Val Val Lys Leu		160
165		

<210> 2277
 <211> 640
 <212> DNA
 <213> Homo sapiens

<400> 2277
 ggtaccctcg gctgccatga gcacgggcac cccacgggga cagcaagctc agcaccacgt
 60
 gggcctgac agacagccac ctgcgtcggt tcattggttt ctccttcatt ttgaaggagt
 120
 gacagggaca ctgagggatg aaagcccca cgctctggcc tgccctgctc agtcagggcc
 180
 gctggcatgg gccgttcttc ccttgggact gcacagcctg gaccnccac caagtctgt
 240
 tgcccaccct ggctcagctc tcttcagcc gcattgctgc cttctcctt cctttccca
 300
 taccagtc tgccatctcc cagctgcaag gtccatgcca cccacagga agagcctcag
 360
 cggctgtcct cagacccac cctgtctgcc ccgacctgc cgcctacca aattctaagc
 420
 acaccatgac ccggcctgcc ctggtgtgct gcccatggcc cggcgtgacc cagtgtgctg
 480
 cccatggccc agcgtccag tgtgctgccc acggcccagc ctgaccgacc cgggtgtgctg
 540
 cccgcccgc ggcccgacc agtgtgctgc tctgggaagg aagcctggtg ggaacagtgc
 600
 tcaactcact actctgtcac tcgtcaccc cttcagcgt
 640

<210> 2278
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 2278
 Lys Pro Pro Arg Ser Gly Leu Pro Cys Ser Val Arg Ala Ala Gly Met
 1 5 10 15
 Gly Arg Ser Ser Pro Gly Thr Ala Gln Pro Gly Pro Xaa Thr Lys Ser
 20 25 30
 Cys Cys Pro Pro Trp Leu Ser Ser Pro Pro Ala Ala Cys Leu Pro Ser
 35 40 45
 Ser Leu Leu Ser Pro Tyr Pro Val Leu Pro Ser Pro Ser Cys Lys Val
 50 55 60
 His Ala Thr Pro Gln Glu Pro Gln Arg Leu Ser Ser Asp Pro Thr
 65 70 75 80
 Leu Ser Ala Pro Thr Leu Pro Pro His Gln Ile Leu Ser Thr Pro
 85 90 95

<210> 2279
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 2279
 aggccgggtg caccatccat ccccggtgcc tcgggtcatc tcaggagagac tgtgggatga
 60
 tagtgcgttt gtgggccaca gttcacaagg atgggccctg cctccgggtc agaagaaccc
 120
 ttccggacca ggggatgca caggggccaa gagaatgcat ggaatcagag ggcactggcc
 180
 ccactcactc cccatcatcg cctgcagtgt tgttttcatt cctgcactgt gcctttgttt
 240
 cctttcttgg tacctcattt actcctgcct gcattctctc cctttccac ggctcacctc
 300
 tctcttggag ttctggggca gtgccaatcg g
 331

<210> 2280
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2280
 Met Ile Val Arg Leu Trp Ala Thr Val His Lys Asp Gly Pro Cys Leu
 1 5 10 15
 Arg Val Arg Arg Thr Leu Pro Asp Gln Gly Asp Ala Gln Gly Pro Arg
 20 25 30
 Glu Cys Met Glu Ser Glu Gly Thr Gly Pro Thr His Ser Pro Ser Ser
 35 40 45
 Pro Ala Val Leu Phe Ser Phe Leu His Cys Ala Phe Val Ser Phe Leu
 50 55 60
 Gly Thr Ser Phe Thr Pro Ala Cys Ile Ser Ser Leu Ser His Gly Ser
 65 70 75 80
 Pro Leu Ser Trp Ser Ser Gly Ala Val Pro Ile
 85 90

<210> 2281
 <211> 409
 <212> DNA
 <213> Homo sapiens

<400> 2281
 tgatcatccg gacacagcct ttactcacgc agaggaaaat agttgtgtta catctaattg
 60
 ttcaactaat gaaggtaag aaacaaatca gtgggaacaa gaaaaatcat acctaggtga
 120
 gatgacaaat tcaagcattg ccacagaaaa ttttcctgct gtcagttctc ccaccaact
 180
 gataatgaag ccaggctctg aatgggatgg ctctacccca agtgaggact cccgaggtac
 240
 ctttgtgcca gatattttac atggcaactt tcaagagggt gggcagctgg cctctgccgc
 300

gcctgacttg tggatagatg ctaagaagcc cttcagtttg aaagcagatg gtgagaatcc
 360
 tgatatcctg acgcactgcg aacatgacta cggggagacg acaacgcgt
 409

<210> 2282
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2282
 Met Thr Asn Ser Ser Ile Ala Thr Glu Asn Phe Pro Ala Val Ser Ser
 1 5 10 15
 Pro Thr Gln Leu Ile Met Lys Pro Gly Ser Glu Trp Asp Gly Ser Thr
 20 25 30
 Pro Ser Glu Asp Ser Arg Gly Thr Phe Val Pro Asp Ile Leu His Gly
 35 40 45
 Asn Phe Gln Glu Gly Gly Gln Leu Ala Ser Ala Ala Pro Asp Leu Trp
 50 55 60
 Ile Asp Ala Lys Lys Pro Phe Ser Leu Lys Ala Asp Gly Glu Asn Pro
 65 70 75 80
 Asp Ile Leu Thr His Cys Glu His Asp Tyr Gly Glu Thr Thr Thr Arg
 85 90 95

<210> 2283
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 2283
 ggcgccaata atgcgctccg gtccgatgcg gacgagatgg atctgcgcag ccagcgccgt
 60
 caatggaccc gacgagcttg tgaacatctt cttgtcgtct tttttcttgt aggagcggta
 120
 ccgacaattt ctagtaaatt ccgacgaaag tttattgtaa aatactctgc aacctctttt
 180
 ctgctctgcc atctgggtgg gggttgcaac tttccacatc actgtcgagt gcttcgtaac
 240
 cgtcttcaac cctgtcatcg ttcttctcag ttgcaccaag cttttggacg tgcggtgata
 300
 cgacttccag ctaaagcgca ggcgtcccat gccacttctt ctccgaagat gcgtaaagtt
 360
 cgcaccagga agcaaggcgc ggtcgagcga tcttccgcgc catg
 404

<210> 2284
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 2284
 Met Asp Leu Arg Ser Gln Arg Arg Gln Trp Thr Arg Arg Ala Cys Glu
 1 5 10 15
 His Leu Leu Val Val Phe Phe Leu Val Gly Ala Val Pro Thr Ile Ser

	20		25		30										
Ser	Lys	Phe	Arg	Arg	Lys	Phe	Ile	Val	Lys	Tyr	Ser	Ala	Thr	Ser	Phe
	35						40					45			
Leu	Leu	Cys	His	Leu	Gly	Gly	Gly	Cys	Asn	Phe	Pro	His	His	Cys	Arg
	50					55					60				
Val	Leu	Arg	Asn	Arg	Leu	Gln	Pro	Cys	His	Arg	Ser	Ser	Gln	Leu	His
65					70					75				80	
Gln	Ala	Phe	Gly	Arg	Ala	Val	Ile	Arg	Leu	Pro	Ala	Lys	Ala	Gln	Ala
				85					90					95	
Ser	His	Ala	Thr	Ser	Ser	Pro	Lys	Met	Arg	Lys	Val	Arg	Thr	Arg	Lys
			100						105					110	
Gln	Gly	Ala	Val	Glu	Arg	Ser	Ser	Ala	Pro						
	115							120							

<210> 2285

<211> 6505

<212> DNA

<213> Homo sapiens

<400> 2285

```

ccggttcctg ccattgcccgg cggccccagt ccccgagacc ccgagccttt gctgcgcccc
60
ctctctctgc tcctctgcgc tctggctccc ggcgcccccg gaccgcacc aggacgtgca
120
accgagggcc gggcggcact ggacatcgtg caccgggttc gagtcgacgc ggggggctcc
180
ttcctgtect acgagctgtg gccccgcgca ctgcgcaagc gggatgtatc tgtgcgccga
240
gacgcgcccc cttctacga gctacaatac cgcgggcgcg agctgcgctt caacctgacc
300
gccaatcagc acctgctggc gcccggcttt gtgagcgaga cgcggcgggc cggcggcctg
360
ggcgcgcgcg acatccgggc ccacaccccg gcctgccacc tgcttggcga ggtgcaggac
420
cctgagctcg aggggtggcct ggcggccatc agcgctgctg acggcctgaa aggtgtgttc
480
cagctctcca acgaggacta cttcattgag cccctggaca gtgccccggc ccggcctggc
540
cacgcccagc cccatgtggt gtacaagcgt caggcccccg agaggctggc acagcggggt
600
gattccagtg ctccaagcac ctgtagtgca agtgtaccga gagctggagt ctgcacggga
660
gcgttgggag cagcggcagc agtggcgggc gccacggcta ggcgtctaca ccagcggtcg
720
gtcagcaaag agaagtgggt ggagaccctg gtagtagctg atgccaatg ggtggagtac
780
cacggacagc cgcaggttga gagctatgtg ctgaccatca tgaacatggt ggctggcctg
840
tttcatgacc ccagcattgg gaaccccatc cacatcacca ttgtgcgcct ggtcctgctg
900
gaagatgagg aggaggacct aaagatcacg caccatgcag acaacaccct gaagagcttc
960
tgcaagtggc agaaaagcat caacatgaag ggggatggcc atcccctgca ccatgacact
1020

```

gccatcctgc tcaccagaaa ggacctgtgt gcagccatga accggccctg tgagaccctg
1080
ggactgtccc atgtggcggg catgtgccag ccgcaccgca gctgcagcat caacgaggac
1140
acgggcctgc cgctggcctt cactgtagcc cacgagctcg ggcacagttt tggcattcag
1200
catgacggaa gcggcaatga ctgtgagccc gttgggaaac gacctttcat catgtctcca
1260
cagctcctgt acgacgccgc tcccctcacc tgggtcccgt gcagccgcca gtatatcacc
1320
aggttccttg accgtgggtg gggcctgtgc ctggacgacc ctctgccaa ggacattatc
1380
gacttcccct cggtgccacc tggcgctctc tatgatgtaa gccaccagtg ccgcctccag
1440
tacggggcct actctgcctt ctgcgaggac atggataatg tctgccacac actctgggtg
1500
tctgtgggga ccacctgtca ctccaagctg gatgcagctg tggacggcac ccggtgtggg
1560
gagaataagt ggtgtctcag tggggagtgc gtaccctggg gcttccggcc cgaggccgtg
1620
gatggtggct ggtctggctg gagcgcttg tccatctgct cacggagctg tggcatgggc
1680
gtacagagcg ccgagcggca gtgcacgcag cctacgcca aatacaaagg cagatactgt
1740
gtgggtgagc gcaagcgctt ccgcctctgc aacctgcagg cctgccctgc tggccgcccc
1800
tccttccgcc acgtccagtg cagccacttt gacgctatgc tctacaaggg ccagctgcac
1860
acatgggtgc ccgtggtcaa tgacgtgaac ccctgcgagc tgcactgccg gcccgcgaat
1920
gagtactttg ccaagaagct gcgggacgcc gtggtcgatg gcaccccctg ctaccaggtc
1980
cgagccagcc gggacctctg catcaacggc atctgtaaga acgtgggctg tgacttcgag
2040
attgactccg gtgctatgga ggaccgctgt ggtgtgtgcc acggcaacgg ctccacctgc
2100
cacaccgtga gcgggacctt cnngaggagg ccgagggctn tggggtatgt ggatgtgggg
2160
ctgatcccag cgggcgcacg cgagatccgc atccaagagg ttgccgaggc tgccaacttc
2220
ctggcactgc ggagcgagga cccggagaag tacttctca atggtggctg gaccatccag
2280
tggaacgggg actaccagggt ggcagggacc accttcacat acgcacgcag gggcaactgg
2340
gagaacctca cgtccccggg tcccaccaag gagcctgtct ggatccagggt gcctgcctcc
2400
cgtggcccag gcggggggag cagaggcgga gtccccaggc ccagcacctt ccatggcagg
2460
tctcgtcctg gaggagttag ccctggttca gtcacagagc ctggctctga gccaggccct
2520
cctgctgcgg cctctacctc agtttcccca tctttaaaat ggcccaatct tgtagctgca
2580
gttcacagag gtggctgggg tcaagctcct ttaggactgg gtggatggag aagacacctt
2640

gtgctcatgg gccccgcct gccacccag ctgctgttcc aggagagcaa ccttggggtg
2700
cactacgagt acaccatcca caggaggca ggtggccacg acgaggtccc gccgcccgtg
2760
ttctcctggc attatgggcc ctggaccaag tgcacagtca cctgcggcag aggtgtgcag
2820
aggcagaatg tgtactgctt ggagcggcag gcagggcccc tggacgagga gcactgtgac
2880
cccctgggcc ggctgatga ccaacagagg aagtgcagcg agcagccctg ccctgccagg
2940
tgggtggcag gtgagtggca gctgtgctcc agctcctgcg ggcttggggg cctctcccgc
3000
cgggccgtgc tctgcatccg cagcgtgggg ctggatgagc agagcgcctt ggagccaccc
3060
gcctgtgaac accttccccg gcccctact gaaacccctt gcaaccgcca tgtaccctgt
3120
ccggccacct gggtgtggg gaactggtct cagtgtcag tgacatgtgg ggagggcact
3180
cagcgcgaa atgtcctctg caccaatgac accggtgtcc cctgtgacga ggcccagcag
3240
ccagccagcg aagtcacctg ctctctgcca ctctgtcggg gggccctggg cacactgggc
3300
cctgaaggct caggcagcgg ctctccagc cagagctct tcaacgaggc tgacttcac
3360
ccgaccacc tggccccacg cccttcaccc gcctcatcac ccaagccagg caccatgggc
3420
aacgccattg aggaggaggc tccagagctg gacctgccg gggccgtgtt tgtggacgac
3480
ttctactacg actacaattt catcaatttc cagaggatc tgtcctacgg gccctctgag
3540
gagcccgatc tagacctggc ggggacaggg gaccggacgc ccccaccaca cagccatcct
3600
gctgcgcctt ccacgggtag ccctgtgcct gccacagagc ctctgcagc caaggaggag
3660
gggttactgg gaccttggc cccgagccct tggcctagcc aggccggccg ctccccaccc
3720
ccacctcag agcagacccc tgggaaccct ttgatcaatt tcctgcctga ggaagacacc
3780
cccatagggg cccagatct tgggctcccc agcctgtcct gggccagggt ttccactgat
3840
ggcctgcaga cacctgccac ccctgagagc caaaatgatt tcccagttgg caaggacagc
3900
cagagccagc tgccccctcc atggcgggac aggaccaatg aggttttcaa ggatgatgag
3960
gaaccaagg gccgcggagc acccacctg ccccgagac ccagctccac gctgccccct
4020
ttgtccccctg ttggcagcac ccaactcctt cctagtcttg acgtggcgga gctgtggaca
4080
ggaggcacag tggcctggga gccagctctg gaggggtggc tggggcctgt ggacagtga
4140
ctgtggccca ctgttggggg ggttctctc ctctctctc ccatagcccc tctgccagag
4200
atgaaggcca gggacagttc cctggagccg gggactccct ccttcccagc cccaggacca
4260

ggctcatggg acctgcagac tgtggcagtg tgggggacct tctccccac aaccctgact
4320
ggcctcgggc acatgcctga gcctgccctg aaccaggac ccaagggcca gcctgagtcc
4380
ctcagccctg aggtgcccct gagctctagg ctgctgtcca caccagcttg ggacagcccc
4440
gccaacagcc acagagtccc tgagaccag ccgctggctc ccagcctggc tgaagcgggg
4500
cccccgcg acccgttggt tgtcaggaac gccagctggc aagcgggaaa ctggagcgag
4560
tgctctacca cctgtggcct ggggtgcggtc tggaggccgg tgcgctgtag ctccggccgg
4620
gatgaggact gcgccccgc tggccggccc cagcctgccc gccgctgcca cctgcggccc
4680
tgtgccacct ggcaactcagg caactggagt aagtgtccc gcagctgcgg cggaggttcc
4740
tcagtgcggg acgtgcagtg tgtggacaca cgggacctcc ggccactgcg gcccttccat
4800
tgtcagcccc ggccctgcca gccgcctgcg caccggccct gcggggccca gccctgcctc
4860
agctggtaca catcttcttg gagggagtgc tccgaggcct gtggcggtgg tgagcagcag
4920
cgtctagtga cctgcccga gccaggcctc tgcgaggagg cgctgagacc caacaccacc
4980
cggccctgca acaccaccc ctgcacgcag tgggtggtgg ggccctgggg ccagtgtca
5040
gccccctgtg gtggtggtgt ccagcggcgc ctggtcaagt gtgtcaacac ccagacaggg
5100
ctgcccaggg aagacagtga ccagtgtggc caccaggcct ggccctgagag ctcccgccg
5160
tgtggcaccg aggattgtga gcccgtcag cctccccgt gtgagcgga ccgcctgtcc
5220
ttcggttct gcgagacgt gcgcctactg ggccgctgcc agctgccac catccgcacc
5280
cagtgtgcc gctcgtgtc tccgcccag caccggccc cctcccgagg ccacagcgg
5340
gttgcgccgc gctgactgt ccaggatgca cagaccgacc gacagacctc agtgcacc
5400
acgggctgtg gcggagctcc cgcacctgc gccctaattg tgctaacccc ctctcactac
5460
ccagcagcag gctggggacc tctccccct caaaaaagg attttttat tctaacagtt
5520
tgtgtaacat ttattatgat ttacataaa tgagcatcta ccattccaaa gcacagcatg
5580
acttcattt ggatttgag aatcttaaaa gtgagaaact cttccccca ctctctgcc
5640
caaaactcca ccgccacag acctcggcag gcgcggcttt tcacctgctc ctctggggca
5700
gatctgcagg gtacagagca gcaacaagt ccgtgagagc atggcgtctg gtgaggcacg
5760
ggccttgga gctggggggc tgctgccag ggagggtat ctgcggaggg tcgggttctg
5820
ggggcaggaa ggtcttcgg gcaggggcac agctttgcc ttacttgctg cctgcctcta
5880

gctcggtccc cagctttccc tggggcccca ctctgtggtc ctcagagacc tgttccacag
 5940
 ggattgggcc caccttgcca cttgcaggac tgccccttgg agtgatgggg actggggccc
 6000
 ccaggggcac ctccttgggc ctgttgatc tgttgactct tctgcaaaaa gtagacagag
 6060
 aagagagcag gctggcccgc tgtgctctac tgtgtctgtc ccaggactcg gaaggtaggg
 6120
 agggagcgtg gccagggcgg ctgcctgcag gtgcgtgtcc tgctgctccc caactcaaca
 6180
 tgctcacctc atttcacacc aacaagcccc atcctcagag gaggagccca aggctctgag
 6240
 aggaagtaac tggcccaagg gcacatgccc tggtagacaca ggcccatcct aggcctgac
 6300
 tgcccacctc caagttccag gccaccctga gcaggcccca gtggcagctt tgcacagaga
 6360
 gggcagcctg ccagagttca cacaggaaag caagttgctg ggcaagctag agtgagtccc
 6420
 agccccgctg tgctgcccga gggtagagga gcgtcaggcg tgcttctgt ctgtctgcag
 6480
 cagcccggct ggcccaaaga gactc
 6505

<210> 2286

<211> 1784

<212> PRT

<213> Homo sapiens

<400> 2286

Pro	Val	Pro	Ala	Met	Pro	Gly	Gly	Pro	Ser	Pro	Arg	Ser	Pro	Ala	Pro
1				5					10					15	
Leu	Leu	Arg	Pro	Leu	Leu	Leu	Leu	Leu	Cys	Ala	Leu	Ala	Pro	Gly	Ala
			20					25					30		
Pro	Gly	Pro	Ala	Pro	Gly	Arg	Ala	Thr	Glu	Gly	Arg	Ala	Ala	Leu	Asp
			35				40					45			
Ile	Val	His	Pro	Val	Arg	Val	Asp	Ala	Gly	Gly	Ser	Phe	Leu	Ser	Tyr
			50				55				60				
Glu	Leu	Trp	Pro	Arg	Ala	Leu	Arg	Lys	Arg	Asp	Val	Ser	Val	Arg	Arg
65					70					75				80	
Asp	Ala	Pro	Ala	Phe	Tyr	Glu	Leu	Gln	Tyr	Arg	Gly	Arg	Glu	Leu	Arg
				85					90				95		
Phe	Asn	Leu	Thr	Ala	Asn	Gln	His	Leu	Leu	Ala	Pro	Gly	Phe	Val	Ser
			100					105					110		
Glu	Thr	Arg	Arg	Arg	Gly	Gly	Leu	Gly	Arg	Ala	His	Ile	Arg	Ala	His
		115				120					125				
Thr	Pro	Ala	Cys	His	Leu	Leu	Gly	Glu	Val	Gln	Asp	Pro	Glu	Leu	Glu
		130				135					140				
Gly	Gly	Leu	Ala	Ala	Ile	Ser	Ala	Cys	Asp	Gly	Leu	Lys	Gly	Val	Phe
145					150					155				160	
Gln	Leu	Ser	Asn	Glu	Asp	Tyr	Phe	Ile	Glu	Pro	Leu	Asp	Ser	Ala	Pro
			165					170					175		
Ala	Arg	Pro	Gly	His	Ala	Gln	Pro	His	Val	Val	Tyr	Lys	Arg	Gln	Ala
		180						185					190		
Pro	Glu	Arg	Leu	Ala	Gln	Arg	Gly	Asp	Ser	Ser	Ala	Pro	Ser	Thr	Cys

		195						200						205					
Ser	Ala	Ser	Val	Pro	Arg	Ala	Gly	Val	Ser	Thr	Gly	Ala	Leu	Gly	Ala				
	210						215				220								
Ala	Ala	Ala	Val	Ala	Ala	Ala	Thr	Ala	Arg	Arg	Leu	His	Gln	Arg	Ser				
225						230				235					240				
Val	Ser	Lys	Glu	Lys	Trp	Val	Glu	Thr	Leu	Val	Val	Ala	Asp	Ala	Lys				
					245				250					255					
Met	Val	Glu	Tyr	His	Gly	Gln	Pro	Gln	Val	Glu	Ser	Tyr	Val	Leu	Thr				
			260					265					270						
Ile	Met	Asn	Met	Val	Ala	Gly	Leu	Phe	His	Asp	Pro	Ser	Ile	Gly	Asn				
		275					280					285							
Pro	Ile	His	Ile	Thr	Ile	Val	Arg	Leu	Val	Leu	Leu	Glu	Asp	Glu	Glu				
		290				295					300								
Glu	Asp	Leu	Lys	Ile	Thr	His	His	Ala	Asp	Asn	Thr	Leu	Lys	Ser	Phe				
305					310					315					320				
Cys	Lys	Trp	Gln	Lys	Ser	Ile	Asn	Met	Lys	Gly	Asp	Ala	His	Pro	Leu				
				325					330					335					
His	His	Asp	Thr	Ala	Ile	Leu	Leu	Thr	Arg	Lys	Asp	Leu	Cys	Ala	Ala				
			340					345					350						
Met	Asn	Arg	Pro	Cys	Glu	Thr	Leu	Gly	Leu	Ser	His	Val	Ala	Gly	Met				
		355					360					365							
Cys	Gln	Pro	His	Arg	Ser	Cys	Ser	Ile	Asn	Glu	Asp	Thr	Gly	Leu	Pro				
		370				375					380								
Leu	Ala	Phe	Thr	Val	Ala	His	Glu	Leu	Gly	His	Ser	Phe	Gly	Ile	Gln				
385					390					395					400				
His	Asp	Gly	Ser	Gly	Asn	Asp	Cys	Glu	Pro	Val	Gly	Lys	Arg	Pro	Phe				
				405					410					415					
Ile	Met	Ser	Pro	Gln	Leu	Leu	Tyr	Asp	Ala	Ala	Pro	Leu	Thr	Trp	Ser				
			420					425					430						
Arg	Cys	Ser	Arg	Gln	Tyr	Ile	Thr	Arg	Phe	Leu	Asp	Arg	Gly	Trp	Gly				
		435					440					445							
Leu	Cys	Leu	Asp	Asp	Pro	Pro	Ala	Lys	Asp	Ile	Ile	Asp	Phe	Pro	Ser				
		450				455					460								
Val	Pro	Pro	Gly	Val	Leu	Tyr	Asp	Val	Ser	His	Gln	Cys	Arg	Leu	Gln				
465					470					475					480				
Tyr	Gly	Ala	Tyr	Ser	Ala	Phe	Cys	Glu	Asp	Met	Asp	Asn	Val	Cys	His				
				485					490					495					
Thr	Leu	Trp	Cys	Ser	Val	Gly	Thr	Thr	Cys	His	Ser	Lys	Leu	Asp	Ala				
			500					505					510						
Ala	Val	Asp	Gly	Thr	Arg	Cys	Gly	Glu	Asn	Lys	Trp	Cys	Leu	Ser	Gly				
		515					520					525							
Glu	Cys	Val	Pro	Val	Gly	Phe	Arg	Pro	Glu	Ala	Val	Asp	Gly	Gly	Trp				
		530				535					540								
Ser	Gly	Trp	Ser	Ala	Trp	Ser	Ile	Cys	Ser	Arg	Ser	Cys	Gly	Met	Gly				
545					550														

625					630					635				640
Glu Tyr Phe Ala	Lys Lys Leu Arg Asp	Ala Val Val Asp Gly Thr Pro												
	645				650								655	
Cys Tyr Gln Val	Arg Ala Ser Arg Asp	Leu Cys Ile Asn Gly Ile Cys												
	660				665								670	
Lys Asn Val Gly	Cys Asp Phe Glu Ile Asp	Ser Gly Ala Met Glu Asp												
	675				680								685	
Arg Cys Gly Val	Cys His Gly Asn Gly Ser Thr	Cys His Thr Val Ser												
	690				695								700	
Gly Thr Phe Xaa	Arg Arg Pro Arg Val Xaa	Gly Tyr Val Asp Val Gly												
705		710			715									720
Leu Ile Pro Ala	Gly Ala Arg Glu Ile Arg	Ile Gln Glu Val Ala Glu												
	725				730									735
Ala Ala Asn Phe	Leu Ala Leu Arg Ser Glu	Asp Pro Glu Lys Tyr Phe												
	740				745								750	
Leu Asn Gly Gly	Trp Thr Ile Gln Trp Asn	Gly Asp Tyr Gln Val Ala												
	755				760								765	
Gly Thr Thr Phe	Thr Tyr Ala Arg Arg Gly	Asn Trp Glu Asn Leu Thr												
	770				775								780	
Ser Pro Gly Pro	Thr Lys Glu Pro Val Trp	Ile Gln Val Pro Ala Ser												
785		790			795									800
Arg Gly Pro Gly	Gly Gly Ser Arg Gly Gly	Val Pro Arg Pro Ser Thr												
	805				810									815
Leu His Gly Arg	Ser Arg Pro Gly Gly Val	Ser Pro Gly Ser Val Thr												
	820				825									830
Glu Pro Gly Ser	Glu Pro Gly Pro Pro Ala	Ala Ala Ser Thr Ser Val												
	835				840								845	
Ser Pro Ser Leu	Lys Trp Pro Asn Leu Val	Ala Ala Val His Arg Gly												
	850				855								860	
Gly Trp Gly Gln	Ala Pro Leu Gly Leu Gly	Gly Trp Arg Arg His Leu												
865		870			875									880
Val Leu Met Gly	Pro Arg Leu Pro Thr Gln	Leu Leu Phe Gln Glu Ser												
	885				890									895
Asn Pro Gly Val	His Tyr Glu Tyr Thr Ile	His Arg Glu Ala Gly Gly												
	900				905								910	
His Asp Glu Val	Pro Pro Pro Val Phe Ser	Trp His Tyr Gly Pro Trp												
	915				920								925	
Thr Lys Cys Thr	Val Thr Cys Gly Arg Gly	Val Gln Arg Gln Asn Val												
	930				935								940	
Tyr Cys Leu Glu	Arg Gln Ala Gly Pro Val	Asp Glu Glu His Cys Asp												
945		950			955									960
Pro Leu Gly Arg	Pro Asp Asp Gln Gln Arg	Lys Cys Ser Glu Gln Pro												
	965				970									975
Cys Pro Ala Arg	Trp Trp Ala Gly Glu Trp	Gln Leu Cys Ser Ser Ser												
	980				985									990
Cys Gly Pro Gly	Gly Leu Ser Arg Arg Ala	Val Leu Cys Ile Arg Ser												
	995				1000								1005	
Val Gly Leu Asp	Glu Gln Ser Ala Leu Glu	Pro Pro Ala Cys Glu His												
	1010				1015								1020	
Leu Pro Arg Pro	Pro Thr Glu Thr Pro Cys	Asn Arg His Val Pro Cys												
1025		1030			1035									1040
Pro Ala Thr Trp	Ala Val Gly Asn Trp Ser	Gln Cys Ser Val Thr Cys												
	1045				1050									1055
Gly Glu Gly Thr	Gln Arg Arg Asn Val Leu	Cys Thr Asn Asp Thr Gly												

1060	1065	1070
Val Pro Cys Asp Glu Ala Gln Gln Pro Ala Ser Glu Val Thr Cys Ser		
1075	1080	1085
Leu Pro Leu Cys Arg Trp Pro Leu Gly Thr Leu Gly Pro Glu Gly Ser		
1090	1095	1100
Gly Ser Gly Ser Ser Ser His Glu Leu Phe Asn Glu Ala Asp Phe Ile		
1105	1110	1115
Pro His His Leu Ala Pro Arg Pro Ser Pro Ala Ser Ser Pro Lys Pro		
1125	1130	1135
Gly Thr Met Gly Asn Ala Ile Glu Glu Glu Ala Pro Glu Leu Asp Leu		
1140	1145	1150
Pro Gly Pro Val Phe Val Asp Asp Phe Tyr Tyr Asp Tyr Asn Phe Ile		
1155	1160	1165
Asn Phe His Glu Asp Leu Ser Tyr Gly Pro Ser Glu Glu Pro Asp Leu		
1170	1175	1180
Asp Leu Ala Gly Thr Gly Asp Arg Thr Pro Pro His Ser His Pro		
1185	1190	1195
Ala Ala Pro Ser Thr Gly Ser Pro Val Pro Ala Thr Glu Pro Pro Ala		
1205	1210	1215
Ala Lys Glu Glu Gly Val Leu Gly Pro Trp Ser Pro Ser Pro Trp Pro		
1220	1225	1230
Ser Gln Ala Gly Arg Ser Pro Pro Pro Ser Glu Gln Thr Pro Gly		
1235	1240	1245
Asn Pro Leu Ile Asn Phe Leu Pro Glu Glu Asp Thr Pro Ile Gly Ala		
1250	1255	1260
Pro Asp Leu Gly Leu Pro Ser Leu Ser Trp Pro Arg Val Ser Thr Asp		
1265	1270	1275
Gly Leu Gln Thr Pro Ala Thr Pro Glu Ser Gln Asn Asp Phe Pro Val		
1285	1290	1295
Gly Lys Asp Ser Gln Ser Gln Leu Pro Pro Pro Trp Arg Asp Arg Thr		
1300	1305	1310
Asn Glu Val Phe Lys Asp Asp Glu Glu Pro Lys Gly Arg Gly Ala Pro		
1315	1320	1325
His Leu Pro Pro Arg Pro Ser Ser Thr Leu Pro Pro Leu Ser Pro Val		
1330	1335	1340
Gly Ser Thr His Ser Ser Pro Ser Pro Asp Val Ala Glu Leu Trp Thr		
1345	1350	1355
Gly Gly Thr Val Ala Trp Glu Pro Ala Leu Glu Gly Gly Leu Gly Pro		
1365	1370	1375
Val Asp Ser Glu Leu Trp Pro Thr Val Gly Val Ala Ser Leu Leu Pro		
1380	1385	1390
Pro Pro Ile Ala Pro Leu Pro Glu Met Lys Val Arg Asp Ser Ser Leu		
1395	1400	1405
Glu Pro Gly Thr Pro Ser Phe Pro Ala Pro Gly Pro Gly Ser Trp Asp		
1410	1415	1420
Leu Gln Thr Val Ala Val Trp Gly Thr Phe Leu Pro Thr Thr Leu Thr		
1425	1430	1435
Gly Leu Gly His Met Pro Glu Pro Ala Leu Asn Pro Gly Pro Lys Gly		
1445	1450	1455
Gln Pro Glu Ser Leu Ser Pro Glu Val Pro Leu Ser Ser Arg Leu Leu		
1460	1465	1470
Ser Thr Pro Ala Trp Asp Ser Pro Ala Asn Ser His Arg Val Pro Glu		
1475	1480	1485
Thr Gln Pro Leu Ala Pro Ser Leu Ala Glu Ala Gly Pro Pro Ala Asp		

1490 1495 1500
 Pro Leu Val Val Arg Asn Ala Ser Trp Gln Ala Gly Asn Trp Ser Glu
 1505 1510 1515 1520
 Cys Ser Thr Thr Cys Gly Leu Gly Ala Val Trp Arg Pro Val Arg Cys
 1525 1530 1535
 Ser Ser Gly Arg Asp Glu Asp Cys Ala Pro Ala Gly Arg Pro Gln Pro
 1540 1545 1550
 Ala Arg Arg Cys His Leu Arg Pro Cys Ala Thr Trp His Ser Gly Asn
 1555 1560 1565
 Trp Ser Lys Cys Ser Arg Ser Cys Gly Gly Gly Ser Ser Val Arg Asp
 1570 1575 1580
 Val Gln Cys Val Asp Thr Arg Asp Leu Arg Pro Leu Arg Pro Phe His
 1585 1590 1595 1600
 Cys Gln Pro Gly Pro Ala Lys Pro Pro Ala His Arg Pro Cys Gly Ala
 1605 1610 1615
 Gln Pro Cys Leu Ser Trp Tyr Thr Ser Ser Trp Arg Glu Cys Ser Glu
 1620 1625 1630
 Ala Cys Gly Gly Gly Glu Gln Gln Arg Leu Val Thr Cys Pro Glu Pro
 1635 1640 1645
 Gly Leu Cys Glu Glu Ala Leu Arg Pro Asn Thr Thr Arg Pro Cys Asn
 1650 1655 1660
 Thr His Pro Cys Thr Gln Trp Val Val Gly Pro Trp Gly Gln Cys Ser
 1665 1670 1675 1680
 Ala Pro Cys Gly Gly Val Gln Arg Arg Leu Val Lys Cys Val Asn
 1685 1690 1695
 Thr Gln Thr Gly Leu Pro Glu Glu Asp Ser Asp Gln Cys Gly His Glu
 1700 1705 1710
 Ala Trp Pro Glu Ser Ser Arg Pro Cys Gly Thr Glu Asp Cys Glu Pro
 1715 1720 1725
 Val Glu Pro Pro Arg Cys Glu Arg Asp Arg Leu Ser Phe Gly Phe Cys
 1730 1735 1740
 Glu Thr Leu Arg Leu Leu Gly Arg Cys Gln Leu Pro Thr Ile Arg Thr
 1745 1750 1755 1760
 Gln Cys Cys Arg Ser Cys Ser Pro Pro Ser His Gly Ala Pro Ser Arg
 1765 1770 1775
 Gly His Gln Arg Val Ala Arg Arg
 1780

<210> 2287

<211> 750

<212> DNA

<213> Homo sapiens

<400> 2287

tgacacaggt tatttctctt tgggttaaata tcttacaagt ctttttttaa tcttcacttc
 60
 tggcctataa aagtatcatc atccccattt tacagaatgg gaaagtaagg cgtggggagg
 120
 ttgaggacat ttgtacagag tcaggtaact ggaggaactg gactacaacc ctgctcagt
 180
 cagccagtgt gactgagcgc ctctgagag ccagggtggat tctgccctca aggatccatg
 240
 ctctgggcaa gaaaccacc catcagcagg tggcttctgc tgagccacaa caggcacaca
 300

gaggggtcca tgggagccca gaggggagca tctgaccagg ctcaggggaa ggaatgtgtc
 360
 cagcagagtc acagaggagc agtatgagtt agccaggtag gggacattcc aggcagggga
 420
 gcagcaggac aaaagcatag aggtagcact gccagtgcc agttccaaaa taagaggctg
 480
 actgctacag ggtccatata ggaaaataat gggaaatata tttggacagg aggtggggtc
 540
 tgtaacaaag gactttaatt ccagggttaag gaatctggat gttaaaacaa cattagctgc
 600
 catttctaca gtgctacttc ccaggctctg tgcctttctg ggagccttga aggtttgtga
 660
 gctggaagga gatattagga acaaaacgat gcatgaggat agctcaggta aaggttattg
 720
 ataagtaaga atgcctggca ccaaacgcgt
 750

<210> 2288

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2288

Met	Ala	Ala	Asn	Val	Val	Leu	Thr	Ser	Arg	Phe	Leu	Asn	Leu	Glu	Leu
1				5					10					15	
Lys	Ser	Phe	Val	Thr	Asp	Pro	Thr	Ser	Cys	Pro	Asn	Val	Phe	Pro	Ile
			20					25					30		
Ile	Phe	Leu	Tyr	Gly	Pro	Cys	Ser	Ser	Gln	Pro	Leu	Ile	Leu	Glu	Leu
		35					40					45			
Gly	Thr	Gly	Ser	Ala	Thr	Ser	Met	Leu	Leu	Ser	Cys	Cys	Ser	Pro	Ala
		50				55					60				
Trp	Asn	Val	Pro	Tyr	Leu	Ala	Asn	Ser	Tyr	Cys	Ser	Ser	Val	Thr	Leu
65					70					75				80	
Leu	Asp	Thr	Phe	Leu	Pro	Leu	Ser	Leu	Val	Arg	Cys	Ser	Pro	Leu	Gly
			85						90					95	
Ser	His	Gly	Pro	Leu	Cys	Val	Pro	Val	Val	Ala	Gln	Gln	Lys	Pro	Pro
			100					105					110		
Ala	Asp	Gly	Trp	Val	Ser	Cys	Pro	Glu	His	Gly	Ser	Leu	Arg	Ala	Glu
		115					120					125			
Ser	Thr	Trp	Leu	Ser	Gly	Gly	Ala	Gln	Ser	His	Trp	Leu	His		
		130				135						140			

<210> 2289

<211> 381

<212> DNA

<213> Homo sapiens

<400> 2289

caggacgcgg cctcggcggg gcccgggccg aacggctgcg gacacctggg cgccgaggag
 60
 ccgagcgccg ccgcctccgg catggatcat tgcgtgacgg tggagcgcg gctggagaag
 120
 gtgctgcaca agttctcggg ctacgggcag ctgtgcgagc gcggcctgga ggagctcatc
 180

gactacaccg gcggtctcaa gcaccagatc ctgcagagcc acggccaaga tgctgaatta
 240
 tcagggacac tttcacttgt tttgacacag ggctgtaaaa gaataanaag gggatactgg
 300
 ttcaaaaatt ggctccgac cacaagaca tccacagcag tgtttctcgg gttggaaaag
 360
 ccattgatga ggattcactt t
 381

<210> 2290

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2290

Met	Asp	His	Cys	Val	Thr	Val	Glu	Arg	Glu	Leu	Glu	Lys	Val	Leu	His
1				5					10					15	
Lys	Phe	Ser	Gly	Tyr	Gly	Gln	Leu	Cys	Glu	Arg	Gly	Leu	Glu	Glu	Leu
			20					25					30		
Ile	Asp	Tyr	Thr	Gly	Gly	Leu	Lys	His	Gln	Ile	Leu	Gln	Ser	His	Gly
			35				40					45			
Gln	Asp	Ala	Glu	Leu	Ser	Gly	Thr	Leu	Ser	Leu	Val	Leu	Thr	Gln	Gly
			50			55					60				
Cys	Lys	Arg	Ile	Xaa	Arg	Gly	Tyr	Trp	Phe	Lys	Asn	Trp	Pro	Pro	Thr
65					70					75					80
Thr	Lys	Thr	Ser	Thr	Ala	Val	Phe	Leu	Gly	Leu	Glu	Lys	Pro	Leu	Met
				85				90						95	
Arg	Ile	His	Phe												
				100											

<210> 2291

<211> 573

<212> DNA

<213> Homo sapiens

<400> 2291

gcattgctcta ccgcaaagtc gggccccac cgattaaaaa tgcccgggtc gaggacagcc
 60
 ttcggcagca ccgactcatt atcggcaccg acctagtcaa ttgccaccac ctgcttatgc
 120
 aagtggctga tagaagcccc agccggctta agccagttct ggaaaaccac cacatatcgc
 180
 acatgttcgt tgtgacgatg cagctgagcc attgaatcga cggtcagcgc catgaacgcc
 240
 cgatgctcgt tgacggtaag actcgccgac ccagcaacgt cggcggttgt cgtgccctca
 300
 tcggtgtaat ggcgacgagc gacgatgacg tcatgtccgc cggcaaagaa ggctgcggaa
 360
 gcctcgcgta attcttgggg accgaggtcc tcggcgcgcc ggtctgacct caccgccttg
 420
 aacttggcgt taaggaccga cctcacgtga gcctccccctg acgggttaga caggatttcc
 480
 tcctgccagt ccgcgctgc ccgaggcaag ctcatcccc agttgagctg ccaataccgc
 540

cacgacagga tctcgaaaag attggggacg cgt
573

<210> 2292
<211> 140
<212> PRT
<213> Homo sapiens

<400> 2292
Met Ser Leu Pro Arg Ala Ala Arg Asp Trp Gln Glu Glu Tyr Leu Ser
1 5 10 15
Asn Pro Ser Gly Glu Ala His Val Arg Ser Val Leu Asn Ala Lys Phe
20 25 30
Lys Ala Val Gly Ser Asp Arg Arg Ala Glu Asp Leu Gly Pro Gln Glu
35 40 45
Leu Arg Glu Ala Ser Ala Ala Phe Phe Ala Gly Gly His Asp Val Ile
50 55 60
Val Ala Arg Arg His Tyr Thr Asp Glu Gly Thr Thr Thr Ala Asp Val
65 70 75 80
Ala Gly Ser Ala Ser Leu Thr Val Asn Glu His Arg Ala Phe Met Ala
85 90 95
Leu Thr Val Asp Ser Met Ala Gln Leu His Arg His Asn Glu His Val
100 105 110
Arg Tyr Val Val Val Phe Gln Asn Trp Leu Lys Pro Ala Gly Ala Ser
115 120 125
Ile Asp His Leu His Lys Gln Val Val Ala Ile Asp
130 135 140

<210> 2293
<211> 358
<212> DNA
<213> Homo sapiens

<400> 2293
acgcgtgaag gaatggaagc tgctctcgtc ggtgcacaca agactggcgg gtgcccattg
60
gtgaacactg tcgctaagaa ctggttgaac cggctcaaca cgccggatat gaaaccact
120
gaggagatca agcggcagtt ccaaggtctg cattgggttg gacgtaagta tgggctcaac
180
cacggagagt tctatcttga cgacgagcag tgggccacgc tcatggccgg gtcctcttcc
240
gaggcgaatc cgcgcatata gagcaacttt gattccgagg gcgctgttgt ggatccggat
300
tccgattcac ttgctggggc tgatcgagat gcccgaggtg ctccggatgc atgccttc
358

<210> 2294
<211> 115
<212> PRT
<213> Homo sapiens

<400> 2294
Met Glu Ala Ala Leu Val Gly Ala His Lys Thr Gly Gly Cys Pro Leu

1	5	10	15
Val Asn Thr	Val Ala Lys Asn Trp	Leu Asn Arg	Leu Asn Thr Pro Asp
20	25	30	
Met Lys Pro Thr	Glu Glu Ile Lys Arg Gln Phe	Gln Gly Leu His Trp	
35	40	45	
Leu Gly Arg Lys Tyr	Gly Leu Asn His Gly Glu Phe Tyr	Leu Asp Asp	
50	55	60	
Glu Gln Trp Ala Thr	Leu Met Ala Gly Ser Ser Phe Glu Ala Asn Pro		
65	70	75	80
Arg Ile Lys Ser Asn Phe Asp Ser	Glu Gly Ala Val Val Asp Pro Asp		
85	90	95	
Ser Asp Ser Leu Ala Gly Ala Asp	Arg Asp Ala Arg Gly Ala Ser Asp		
100	105	110	
Ala Cys Leu			
115			

<210> 2295
 <211> 546
 <212> DNA
 <213> Homo sapiens

<400> 2295
 ggcaccgatac cgagtgggtgg tgccgggatt aggnccgatac tanaaacatt ctccgccctt
 60
 ggggcgatatg gctgctcggc cattaccgca ctggtagcgc aaaatacgcg cggcgtgcag
 120
 tcggtgtatc gtatcgaacc ggattttgtc ggtgcacaac tggactctgt gttcagcgat
 180
 gtccgcattg attccaccaa aatcggcatg ctggcagagg cggatatcgt ggaagcggtc
 240
 gcggagcgcc tcaaacatta tcgcgttaaa aacgtggtac ttgatacggg gatgctggcg
 300
 aaaagtggcg atccgctgct atctcctgct gctgtcgaaa ctctgcgaaa acaccttctg
 360
 ccacacgtcg cgctgatcac gccaaatttg ccggaggcgg cggcgtgct ggatgcgcct
 420
 catgcccgtg ccgagcacga gatgaaagag caggggcgcg cacttctggc gcttggctgc
 480
 gaggcagtgc tgatgaaagg cggccatctt gacgatcctg agagcccggg ctggctcttc
 540
 acgcgt
 546

<210> 2296
 <211> 182
 <212> PRT
 <213> Homo sapiens

1	5	10	15
Gly Thr Asp Pro Ser Gly Gly Ala Gly Ile Arg Xaa Asp Leu Xaa Thr			
1	5	10	15
Phe Ser Ala Leu Gly Ala Tyr Gly Cys Ser Val Ile Thr Ala Leu Val			
20	25	30	
Ala Gln Asn Thr Arg Gly Val Gln Ser Val Tyr Arg Ile Glu Pro Asp			

```

      35              40              45
Phe Val Gly Ala Gln Leu Asp Ser Val Phe Ser Asp Val Arg Ile Asp
  50              55              60
Ser Thr Lys Ile Gly Met Leu Ala Glu Ala Asp Ile Val Glu Ala Val
65              70              75              80
Ala Glu Arg Leu Lys His Tyr Arg Val Lys Asn Val Val Leu Asp Thr
      85              90              95
Val Met Leu Ala Lys Ser Gly Asp Pro Leu Leu Ser Pro Ala Ala Val
      100              105              110
Glu Thr Leu Arg Lys His Leu Leu Pro His Val Ala Leu Ile Thr Pro
      115              120              125
Asn Leu Pro Glu Ala Ala Ala Leu Leu Asp Ala Pro His Ala Arg Thr
      130              135              140
Glu His Glu Met Lys Glu Gln Gly Arg Ala Leu Leu Ala Leu Gly Cys
145              150              155              160
Glu Ala Val Leu Met Lys Gly Gly His Leu Asp Asp Pro Glu Ser Pro
      165              170              175
Asp Trp Leu Phe Thr Arg
      180

```

<210> 2297
 <211> 414
 <212> DNA
 <213> Homo sapiens

```

<400> 2297
gggaattccg ggcccttccc cccaagcccg ggtaattttt tgtattttta aaaaaaagg
60
gaattttccc acgttggggg ggggggggttc ggactttttc ccccaaaaac cccccccccc
120
caccccccca aaggccgaaa agcagggcca aaaccccccg gacccccccc gggggggggca
180
aaaggaaaaa cccctttttt tttttttttt ttttatacac atgaggttct ctggttaata
240
aatgttgaga tgtaggggta ggtgagatta aacaggttct tttttcatg atttctcgga
300
gtctttatga tgctccacac cagtacttct caaagctgac tgtgtatata aaacactggg
360
gatctgaccc acatgtaaag tctgatttct ttgggtctggg gcaggcctga aatn
414

```

<210> 2298
 <211> 67
 <212> PRT
 <213> Homo sapiens

```

<400> 2298
Lys Lys Arg Glu Phe Ser His Val Gly Gly Gly Gly Phe Gly Leu Phe
  1              5              10              15
Pro Pro Lys Thr Pro Pro Pro His Pro Pro Lys Gly Arg Lys Ala Gly
      20              25              30
Pro Lys Pro Pro Gly Pro Pro Pro Gly Gly Ala Lys Gly Lys Thr Pro
      35              40              45
Phe Phe Phe Phe Phe Phe Tyr Thr His Glu Gly Leu Trp Leu Ile Asn

```

50
Val Glu Met
65

55

60

<210> 2299
<211> 987
<212> DNA
<213> Homo sapiens

<400> 2299
ngagatgtct aagttat ttttttcccg gaaggcaa at ggctggcgtg gaagcacaac
60
ccgctttcac tcttcgaatt tgtgcttagc tcttttcttg taccctgcga ctctgaccca
120
acatgctgtg atgtgtgccg agggaggaat tggtcagcta cacaacctgg atcttaccac
180
agtttgata tgactgaggc tctccaatgg gccagatata actggcgacg gctgatcaga
240
gggtgaacca gggatgatga ttcagggcca tacaactatt cctcgttgct cgctgtggg
300
cgcaagtcct ctcagatccc taaactgtca ggaaggcacc ggattgttgt tccccacatc
360
cagcccttca aggatgagta tgagaagtgc tccggagcct atgtgaacaa tcgaatacga
420
acaacaaagt acacacttct gaattttgtg ccaagaaatt tatttgaaca atttcacaga
480
gctgccatt tatatttctt gttcctagtt gtcctgaact gggtagcctt ggtagaagcc
540
ttccaaaagg aaatcaccat gttgcctctg gtgggtggcc ttacaattat cgcaattaaa
600
gatggcctgg aagattatcg gaaatacaaa attgacaaac agatcaataa tttataaact
660
aaagtttata gtaggaaaga gaaaaatac attgaccgat gctggaaaga cgttactgtt
720
ggggacttta ttgcctctc ctgcaacgag gtcacccctg cagacatggg actactcttt
780
tccactgata cagatggaat ctgtcacatt gagacttctg gtcttgatgg agagagcaat
840
ttaaaacaga ggcaggtggg tcggggatat gcagaacagg actctgaagt tgatcctgag
900
aagttttcca gtaggataga atgtgaaagc ccaacaatg acctcagcag attccgaggg
960
ttcctagaac attccaacaa agaacgc
987

<210> 2300
<211> 266
<212> PRT
<213> Homo sapiens

<400> 2300
Met Thr Glu Ala Leu Gln Trp Ala Arg Tyr His Trp Arg Arg Leu Ile
1 5 10 15
Arg Gly Ala Thr Arg Asp Asp Asp Ser Gly Pro Tyr Asn Tyr Ser Ser

20							25					30				
Leu	Leu	Ala	Cys	Gly	Arg	Lys	Ser	Ser	Gln	Ile	Pro	Lys	Leu	Ser	Gly	
		35					40					45				
Arg	His	Arg	Ile	Val	Val	Pro	His	Ile	Gln	Pro	Phe	Lys	Asp	Glu	Tyr	
	50					55					60					
Glu	Lys	Phe	Ser	Gly	Ala	Tyr	Val	Asn	Asn	Arg	Ile	Arg	Thr	Thr	Lys	
65					70					75					80	
Tyr	Thr	Leu	Leu	Asn	Phe	Val	Pro	Arg	Asn	Leu	Phe	Glu	Gln	Phe	His	
				85				90						95		
Arg	Ala	Ala	Asn	Leu	Tyr	Phe	Leu	Phe	Leu	Val	Val	Leu	Asn	Trp	Val	
			100				105					110				
Pro	Leu	Val	Glu	Ala	Phe	Gln	Lys	Glu	Ile	Thr	Met	Leu	Pro	Leu	Val	
		115					120					125				
Val	Val	Leu	Thr	Ile	Ile	Ala	Ile	Lys	Asp	Gly	Leu	Glu	Asp	Tyr	Arg	
	130					135					140					
Lys	Tyr	Lys	Ile	Asp	Lys	Gln	Ile	Asn	Asn	Leu	Ile	Thr	Lys	Val	Tyr	
145					150					155					160	
Ser	Arg	Lys	Glu	Lys	Lys	Tyr	Ile	Asp	Arg	Cys	Trp	Lys	Asp	Val	Thr	
				165				170					175			
Val	Gly	Asp	Phe	Ile	Arg	Leu	Ser	Cys	Asn	Glu	Val	Ile	Pro	Ala	Asp	
			180				185					190				
Met	Val	Leu	Leu	Phe	Ser	Thr	Asp	Pro	Asp	Gly	Ile	Cys	His	Ile	Glu	
		195					200					205				
Thr	Ser	Gly	Leu	Asp	Gly	Glu	Ser	Asn	Leu	Lys	Gln	Arg	Gln	Val	Val	
	210					215					220					
Arg	Gly	Tyr	Ala	Glu	Gln	Asp	Ser	Glu	Val	Asp	Pro	Glu	Lys	Phe	Ser	
225					230					235					240	
Ser	Arg	Ile	Glu	Cys	Glu	Ser	Pro	Asn	Asn	Asp	Leu	Ser	Arg	Phe	Arg	
				245				250						255		
Gly	Phe	Leu	Glu	His	Ser	Asn	Lys	Glu	Arg							
			260				265									

<210> 2301

<211> 390

<212> DNA

<213> Homo sapiens

<400> 2301

tatcccaagc gcttcaaatt tgatgccgat gagttctact tgaatcgtc cgaggaaatg
60

nncgccacct cttccgcgna tttccctgaa gcctgcgata acactatgga aatcgctgag
120

nncgttgcca cgttgaattc aacacaaacg caanactaca tgcccgattt cccacccccg
180

gagggggaga atgaggaatc ctggttcgtc aaagaagtgg aacgcggttt gcactaccga
240

ttccccgagg gcattccoga tgacgtacgc aagcaggcag attatgaagt agggattatt
300

accagatgg gattccccgg ctacttcttg gtggtcgcg attttatcaa ctgggcgaag
360

aataacggaa ttcgagtggg ccccgggcgt
390

<210> 2302

<211> 130
 <212> PRT
 <213> Homo sapiens

<400> 2302
 Tyr Pro Lys Arg Phe Lys Phe Asp Ala Asp Glu Phe Tyr Leu Lys Ser
 1 5 10 15
 Ser Glu Glu Met Xaa Ala Thr Ser Ser Ala Xaa Phe Pro Glu Ala Cys
 20 25 30
 Asp Asn Thr Met Glu Ile Ala Glu Xaa Val Ala Thr Leu Asn Ser Thr
 35 40 45
 Gln Thr Gln Xaa Tyr Met Pro Asp Phe Pro Thr Pro Glu Gly Glu Asn
 50 55 60
 Glu Glu Ser Trp Phe Val Lys Glu Val Glu Arg Gly Leu His Tyr Arg
 65 70 75 80
 Phe Pro Glu Gly Ile Pro Asp Asp Val Arg Lys Gln Ala Asp Tyr Glu
 85 90 95
 Val Gly Ile Ile Thr Gln Met Gly Phe Pro Gly Tyr Phe Leu Val Val
 100 105 110
 Ala Asp Phe Ile Asn Trp Ala Lys Asn Asn Gly Ile Arg Val Gly Pro
 115 120 125
 Gly Arg
 130

<210> 2303
 <211> 638
 <212> DNA
 <213> Homo sapiens

<400> 2303
 nnggatccag gctgccccctg tgtgtctcct tcagtcttcg ttagctgcct gctgctgtct
 60
 gcacctgtgt ttggctacct gggcgaccga catagccgca aggctaccat gagcttcggg
 120
 atcttgctgt ggctcaggagc tggcctctct agctccttca tctccccccg gtattcttgg
 180
 ctcttcttcc tgtccccggg catcgagggc actggctcgg ccagctactc caccatcgcg
 240
 cccaccgtcc tgggcgacct ctctgtgagg gaccagcgca cccgcgtgct ggctgtcttc
 300
 tacatcttta tccccgttgg aagtggctctg ggctacgtgc tggggtcggc tgtgacgatg
 360
 ctgactggga actggcgctg ggccctccga gtcatgccct gcctggaggc cgtggccttg
 420
 atcctgctta tcctgctggt tccagacca ccccggggag ctgccgagac acaggggggag
 480
 ggggccgtgg gaggcctcag aagcagctgg tgtgaggacg tcagatacct ggggaaaaaac
 540
 tggagttttg tgtggctgac cctcggagtg accgccatgg cctttgtgac tggagccctg
 600
 gggttctggg cccccaagtt tctgctcgag gcacgcgt
 638

<210> 2304

<211> 212
 <212> PRT
 <213> Homo sapiens

<400> 2304
 Xaa Asp Pro Gly Cys Pro Cys Val Ser Pro Ser Val Phe Val Ser Cys
 1 5 10 15
 Leu Leu Leu Ser Ala Pro Val Phe Gly Tyr Leu Gly Asp Arg His Ser
 20 25 30
 Arg Lys Ala Thr Met Ser Phe Gly Ile Leu Leu Trp Ser Gly Ala Gly
 35 40 45
 Leu Ser Ser Ser Phe Ile Ser Pro Arg Tyr Ser Trp Leu Phe Phe Leu
 50 55 60
 Ser Arg Gly Ile Glu Gly Thr Gly Ser Ala Ser Tyr Ser Thr Ile Ala
 65 70 75 80
 Pro Thr Val Leu Gly Asp Leu Phe Val Arg Asp Gln Arg Thr Arg Val
 85 90 95
 Leu Ala Val Phe Tyr Ile Phe Ile Pro Val Gly Ser Gly Leu Gly Tyr
 100 105 110
 Val Leu Gly Ser Ala Val Thr Met Leu Thr Gly Asn Trp Arg Trp Ala
 115 120 125
 Leu Arg Val Met Pro Cys Leu Glu Ala Val Ala Leu Ile Leu Leu Ile
 130 135 140
 Leu Leu Val Pro Asp Pro Pro Arg Gly Ala Ala Glu Thr Gln Gly Glu
 145 150 155 160
 Gly Ala Val Gly Gly Phe Arg Ser Ser Trp Cys Glu Asp Val Arg Tyr
 165 170 175
 Leu Gly Lys Asn Trp Ser Phe Val Trp Ser Thr Leu Gly Val Thr Ala
 180 185 190
 Met Ala Phe Val Thr Gly Ala Leu Gly Phe Trp Ala Pro Lys Phe Leu
 195 200 205
 Leu Glu Ala Arg
 210

<210> 2305
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 2305
 gccccgcct ctatcttccg gcatcgtcac agtcgcatcg tgacgggtact ggctggagtc
 60
 tcggaccagc acactttgac cgtcgtgggc gctcgtgac atggggtaac gcgaacctcg
 120
 tcgtcctgt tcttgacctc ttccgtgccc ccattgacaa cgatcgggca agttcactgg
 180
 cccgcaacgc tattggtgac gcagcactcg cagctggtct cgaccgactc gtccacacca
 240
 cggcgtcggt gcgcgacgag ggcgatgagt tggtcgtcgt tactcgcagc gctgctgccg
 300
 ccgcacgcaa ttccatgacg acaacgtgga gttggcgcg
 340

<210> 2306

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 2306

Met	Glu	Leu	Arg	Ala	Ala	Ala	Ala	Ala	Leu	Arg	Val	Thr	Thr	Thr	Asn
1				5					10					15	
Ser	Ser	Pro	Ser	Ser	Arg	Thr	Asp	Ala	Val	Val	Trp	Thr	Ser	Arg	Ser
		20						25					30		
Arg	Pro	Ala	Ala	Ser	Ala	Ala	Ser	Pro	Ile	Ala	Leu	Arg	Ala	Ser	Glu
		35					40					45			
Leu	Ala	Arg	Ser	Leu	Ser	Met	Gly	Ala	Arg	Lys	Arg	Ser	Arg	Thr	Gly
	50					55				60					
Ala	Thr	Arg	Phe	Ala	Leu	Pro	His	Val	Thr	Arg	Arg	Pro	Arg	Arg	Ser
65					70					75				80	
Lys	Cys	Ala	Gly	Pro	Arg	Leu	Gln	Pro	Val	Pro	Ser	Arg	Cys	Asp	Cys
				85					90					95	
Asp	Asp	Ala	Gly	Arg											
				100											

<210> 2307
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 2307

```

ngcttctcag ctgaaggggg agataaagct ctacataaga tgggtccagg tgggggcaaa
60
gccaaaggcac tgggtggggc tggcagtggg agcaagggtc cagcaggtgg cggaagcaag
120
cgacggctga gcagcgaaga cagctccctg gagccagacc tggccgagat gagcctggat
180
gacagcagcc tggccctggg cgcagaggcc aggaccttcg ggggattccc tgagagccct
240
ccaccctgtc ctctccacgg tggtccccga ggcccttcca ctttccttcc tgagccccca
300
gatacttatg aagaagatgg tgatgagagt ggcaatgggc ttcccaaaac caaagaggca
360

```

<210> 2308
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 2308

Xaa	Phe	Ser	Ala	Glu	Gly	Gly	Asp	Lys	Ala	Leu	His	Lys	Met	Gly	Pro
1				5				10					15		
Gly	Gly	Gly	Lys	Ala	Lys	Ala	Leu	Gly	Gly	Ala	Gly	Ser	Gly	Ser	Lys
			20					25					30		
Gly	Ser	Ala	Gly	Gly	Gly	Ser	Lys	Arg	Arg	Leu	Ser	Ser	Glu	Asp	Ser
		35					40					45			
Ser	Leu	Glu	Pro	Asp	Leu	Ala	Glu	Met	Ser	Leu	Asp	Asp	Ser	Ser	Leu
	50					55					60				
Ala	Leu	Gly	Ala	Glu	Ala	Arg	Thr	Phe	Gly	Gly	Phe	Pro	Glu	Ser	Pro

```

65          70          75          80
Pro Pro Cys Pro Leu His Gly Gly Ser Arg Gly Pro Ser Thr Phe Leu
          85          90          95
Pro Glu Pro Pro Asp Thr Tyr Glu Glu Asp Gly Asp Glu Ser Gly Asn
          100          105          110
Gly Leu Pro Lys Thr Lys Glu Ala
          115          120

```

<210> 2309
 <211> 395
 <212> DNA
 <213> Homo sapiens

```

<400> 2309
ggatccctac aaatggggcc ctgctctgag cacattccca tgaggggtgc ctgccctgtg
60
cactctctgc cctggggccgc ggggcctgac tgggttccca cctcctccta cccactgggg
120
tcttttccag caggcacagg gattcctcat gggggaggca gagcccaccc gtctgtcttc
180
ggtgacggcc tgagctgtgc acggcctccc ctgccctcct gttctcaggc cccccagggt
240
ccatccagcc ccagcgtgtg gcgttctggc tcttccctgg agtctcctcc cagaccagc
300
gactccactc aactgtgccc tagcggactg tgtggttgat gcagccggct cacttgagtg
360
tgttgtgtta tgcccacaac aggcttgccg tcacc
395

```

<210> 2310
 <211> 108
 <212> PRT
 <213> Homo sapiens

```

<400> 2310
Met Gly Pro Cys Ser Glu His Ile Pro Met Arg Ala Ala Cys Pro Val
1          5          10          15
His Ser Leu Pro Trp Ala Ala Gly Pro Asp Trp Val Pro Thr Ser Ser
          20          25          30
Tyr Pro Leu Gly Ser Phe Pro Ala Gly Thr Gly Ile Pro His Gly Gly
          35          40          45
Gly Arg Ala His Pro Ser Val Leu Gly Asp Gly Leu Ser Cys Ala Arg
          50          55          60
Pro Pro Leu Pro Ser Cys Ser Gln Ala Pro Gln Gly Pro Ser Ser Pro
65          70          75          80
Ser Val Trp Arg Ser Gly Ser Ser Leu Glu Ser Pro Pro Arg Pro Arg
          85          90          95
Asp Ser Thr His Thr Val Pro Ser Gly Leu Cys Gly
          100          105

```

<210> 2311
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2311

gtgcacgccg agatgctgcc gcaagacaag cagcgtgtcg tcggcgagtt gaagcgccag
60
ggcttctcag tgatcaaggt cggcgatggc atcaatgatt gcgacgtctc cgccgcggcg
120
gatgtcggca gtcccatggg cggcagcgcg gacgtggctc tcgaaacggc cgatgctgcc
180
gtccttcacg gacgggtggg ggacgtcttc gcgatgatcg ccctatcgaa gcgaaccatg
240
gccaacattc gacagaacat cgcgatcgcg atcgggctaa aggcggtgtt ccttgtaacg
300
accgtcgtcg gcatcacggg gctttggcct gcaatcctcg ccgatacggg gaccacggag
360
cttgtgacca tgaacgcg
378

<210> 2312

<211> 126

<212> PRT

<213> Homo sapiens

<400> 2312

Val	His	Ala	Glu	Met	Leu	Pro	Gln	Asp	Lys	Gln	Arg	Val	Val	Gly	Glu
1				5					10					15	
Leu	Lys	Arg	Gln	Gly	Phe	Ser	Val	Ile	Lys	Val	Gly	Asp	Gly	Ile	Asn
			20					25					30		
Asp	Cys	Asp	Ala	Leu	Ala	Ala	Ala	Asp	Val	Gly	Ser	Pro	Met	Gly	Gly
		35					40					45			
Ser	Ala	Asp	Val	Ala	Leu	Glu	Thr	Ala	Asp	Ala	Ala	Val	Leu	His	Gly
	50					55				60					
Arg	Val	Gly	Asp	Val	Phe	Ala	Met	Ile	Ala	Leu	Ser	Lys	Arg	Thr	Met
65					70				75					80	
Ala	Asn	Ile	Arg	Gln	Asn	Ile	Ala	Ile	Ala	Ile	Gly	Leu	Lys	Ala	Val
			85				90						95		
Phe	Leu	Val	Thr	Thr	Val	Val	Gly	Ile	Thr	Gly	Leu	Trp	Pro	Ala	Ile
		100					105						110		
Leu	Ala	Asp	Thr	Gly	Thr	Thr	Glu	Leu	Val	Thr	Met	Asn	Ala		
		115					120					125			

<210> 2313

<211> 669

<212> DNA

<213> Homo sapiens

<400> 2313

ctagtggcat ggtctcgtcg gtcttttagtg gagcataccg acacatcggt gactcaaacg
60
atccgaatca tggtctgtcc tggttggcct ggaaccatta acgtacgcct caccatcgc
120
ttaagcgacg ccggtctagc tgtcgaagtc accgcgcgca atgtcggtag gacagcgggg
180
ccgcttggat acgcagcaca cccctatctc tgtctgggtg gcaccatcga cgactggaca
240

gtcgacgccc cgtttacctc gtggttacag gtcgatgac ggctgctacc aatgcagatg
 300
 cgcgagatgg acagcatcca cgcgctgaac ggtctcacgg gcggacagcg caccttcgat
 360
 accgcttaca ccgtgaaagg aggacggaac cgtcggatcg cccgcatggc gatatccggg
 420
 ctcaacggtg aaacgagcca cgaattgtgg ggcgacgccg cgatgagctg ggtgcaagtc
 480
 tacactccag acgaccgcca cagtctggcc atcgagccaa tgacctgagg cccagatgca
 540
 tttaatgagg gcccgaccca cgggtgacgtc attcgactgg agcccggtaa tgacgtcaca
 600
 ctgcactggg gcacgccta acccgcgga gctcgaaagg acaaggacgg gaaggcagga
 660
 ttcacgcgt
 669

<210> 2314
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 2314
 Leu Val Ala Trp Ser Arg Trp Ser Leu Val Glu His Thr Asp Thr Ser
 1 5 10 15
 Val Thr Gln Thr Ile Arg Ile Met Ala Arg Pro Gly Trp Pro Gly Thr
 20 25 30
 Ile Asn Val Arg Leu Thr His Arg Leu Ser Asp Ala Gly Leu Ala Val
 35 40 45
 Glu Val Thr Ala Arg Asn Val Gly Thr Thr Ala Gly Pro Leu Gly Tyr
 50 55 60
 Ala Ala His Pro Tyr Leu Cys Leu Gly Gly Thr Ile Asp Asp Trp Thr
 65 70 75 80
 Val Asp Ala Pro Phe Thr Ser Trp Leu Gln Val Asp Asp Arg Leu Leu
 85 90 95
 Pro Met Gln Met Arg Glu Met Asp Ser Ile His Ala Leu Asn Gly Leu
 100 105 110
 Thr Gly Gly Gln Arg Thr Phe Asp Thr Ala Tyr Thr Val Lys Gly Gly
 115 120 125
 Arg Asn Arg Arg Ile Ala Arg Met Ala Tyr Pro Gly Leu Asn Gly Glu
 130 135 140
 Thr Ser His Glu Leu Trp Gly Asp Ala Ala Met Ser Trp Val Gln Val
 145 150 155 160
 Tyr Thr Pro Asp Asp Arg His Ser Leu Ala Ile Glu Pro Met Thr Cys
 165 170 175
 Gly Pro Asp Ala Phe Asn Glu Gly Pro Thr His Gly Asp Val Ile Arg
 180 185 190
 Leu Glu Pro Gly Asn Asp Val Thr Leu His Trp Gly Ile Ala
 195 200 205

<210> 2315
 <211> 546
 <212> DNA
 <213> Homo sapiens

<400> 2315

nacgcgtccc tcacgatac cgagcccgga atgggaaaac ggggtgtatcg cgttgaggcc
 60
 acccaaggcc gaccaattcg catcgataag gcggtcgctt atcacacttc tcgcggcgtg
 120
 ccggtacatg aactgtttga ccgagtgcgc cgcagcttag accgagtgcg tgaacagggg
 180
 cacaacgtct actacgacga acagcgtgca tggcttgacg attactgggc aacggctgat
 240
 gttgaggtcg aggggtgcccc gaccgggtatt cagcaggctg tcaggtggaa ccttttccag
 300
 attgctcagg catcagcccg tgcagatcaa cttggcattc cggcaaaggg tgtaaccggg
 360
 tcaggctatg aaggccacta cttttgggac actgaggttt atgtcatccc gatgttgacc
 420
 tacactcatc caagaatcgc tgagaatgcg ctgagattcc gggtaatac ccttccgcaa
 480
 gctcgacgcc gggctaagga attgtctgaa cgaggcgccc ttttcccggtg gcgaacaatc
 540
 accggt
 546

<210> 2316

<211> 182

<212> PRT

<213> Homo sapiens

<400> 2316

Xaa	Ala	Ser	Leu	Ile	Asp	Thr	Glu	Pro	Gly	Met	Gly	Lys	Arg	Val	Tyr
1				5					10					15	
Arg	Val	Glu	Ala	Thr	Gln	Gly	Arg	Pro	Ile	Arg	Ile	Asp	Lys	Ala	Val
			20					25					30		
Ala	Tyr	His	Thr	Ser	Arg	Gly	Val	Pro	Val	His	Glu	Leu	Phe	Asp	Arg
		35					40					45			
Val	Arg	Arg	Ser	Leu	Asp	Arg	Val	Arg	Glu	Gln	Gly	His	Asn	Val	Tyr
	50					55					60				
Tyr	Asp	Glu	Gln	Arg	Ala	Trp	Leu	Asp	Asp	Tyr	Trp	Ala	Thr	Ala	Asp
65					70					75				80	
Val	Glu	Val	Glu	Gly	Ala	Pro	Thr	Gly	Ile	Gln	Gln	Ala	Val	Arg	Trp
			85						90					95	
Asn	Leu	Phe	Gln	Ile	Ala	Gln	Ala	Ser	Ala	Arg	Ala	Asp	Gln	Leu	Gly
			100					105					110		
Ile	Pro	Ala	Lys	Gly	Val	Thr	Gly	Ser	Gly	Tyr	Glu	Gly	His	Tyr	Phe
	115						120					125			
Trp	Asp	Thr	Glu	Val	Tyr	Val	Ile	Pro	Met	Leu	Thr	Tyr	Thr	His	Pro
	130						135				140				
Arg	Ile	Ala	Glu	Asn	Ala	Leu	Arg	Phe	Arg	Val	Asn	Thr	Leu	Pro	Gln
145					150					155				160	
Ala	Arg	Arg	Arg	Ala	Lys	Glu	Leu	Ser	Glu	Arg	Gly	Ala	Leu	Phe	Pro
			165						170					175	
Trp	Arg	Thr	Ile	Thr	Gly										
			180												

<210> 2317
 <211> 496
 <212> DNA
 <213> Homo sapiens

<400> 2317
 gccggcgggc tcgggaacgg tcaactgacct gcagcaggca atggcggctc cggtttaatc
 60
 agggttctgc acggagtttt ggatagtcctg tccagtcgcc actggcaagg cgcgaccagg
 120
 cagctgctga cgctgctgtg atgccgagga gatcggagac gattcgtggg tgcactctgcc
 180
 gggtcagttc gatcagcgcg gtcgttcgag cgcttcctga acgcagcccc tgctggcgca
 240
 gacgtcggct gactgggcct ggtgtgagat gcaaccccg attcctgcca ggaaagagcc
 300
 atccctcggg tcgggtgtcc gatgtgtcag cgagctcggc gatcgattc ccgaggacct
 360
 cgggcagttc gattggctcg gctccgatgg tgagcttccc cggtcgtgat gtcacgtcga
 420
 cctgctcacg ggtgagcgcg acgatgcgag tgaggtggag gccgtagagg agcacgagca
 480
 acccagcggc acgcgt
 496

<210> 2318
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2318
 Met Pro Arg Arg Ser Glu Thr Ile Arg Gly Cys Ile Cys Arg Val Ser
 1 5 10 15
 Ser Ile Ser Ala Val Val Arg Ala Leu Pro Glu Arg Ser Pro Cys Trp
 20 25 30
 Arg Arg Arg Arg Leu Ser Gly Pro Gly Val Arg Cys Asn Pro Gly Phe
 35 40 45
 Leu Pro Gly Lys Ser His Pro Ser Gly Arg Cys Leu Asp Val Ser Ala
 50 55 60
 Ser Ser Ala Ile Ala Phe Pro Arg Thr Ser Gly Ser Ser Ile Gly Ser
 65 70 75 80
 Ala Pro Met Val Ser Phe Pro Gly Arg Asp Val Thr Ser Thr Cys Ser
 85 90 95
 Arg Val Ser Ala Thr Met Arg Val Arg Trp Arg Pro
 100 105

<210> 2319
 <211> 1748
 <212> DNA
 <213> Homo sapiens

<400> 2319
 ntgatcaagt ctcgggtctct ggattataacc tttgttcctc gaacttggat ctttcctgct
 60

gaatatactc aattccaaaa ttatgtgaaa gaattgaaga aaaaacggaa gcagaaaact
120
tttatagtga aaccagctaa tgggtgcaatg ggtcatggga tttctttgat aagaaatggg
180
gacaaaacttc catctcagga tcatttgatt gttcaagaat acattgaaaa gcctttccta
240
atggaagggtt acaagtttga cttacgaatt tatattctgg ttacatcgtg tgatccacta
300
aaaatatttc tctacatga tgggcttgtg cgaatgggta cagagaagta cattccacct
360
aatgagtcca atttgaccca gttatacatg catctgacaa actactccgt gaacaagcat
420
aatgagcatt ttgaacggga tgaaactgag aacaaaggca gcaaacgttc catcaaattg
480
tttacagaat tccttcaagc aaatcaacat gatgttgcta agttttggag tgatatttca
540
gaattgggtgg taaagacctt gattgtagca gaacctcatg tcctgcatgc ctatcgaatg
600
tgtagacctg gtcaacctcc aggaagcgaa agtgtctgct ttgaagtcct gggatttgat
660
atthttgttg atagaaaact aaagccatgg cttctggaga ttaaccgagc cccaagcttt
720
ggaactgatc agaaaataga ctatgatgta aaaaggggag tgctgctaaa tgcgttgaag
780
ctactaaaca taaggaccag tgacaaaaga agaaacttgg ccaaacaaaa agctgaggct
840
caaaggaggc tctatggtca aaattcaatt aaaaggctct taccaggctc ctgagactgg
900
gaacagcaga gacaccagtt ggagaggcgg aaagaagagt tgaaagagag actcgtcaa
960
gtacgaaagc agatctcacg agaagaacat gaaaatcgac atatggggaa ttatagacga
1020
atthtacctc ctgaagataa agcattactt gaaaagtatg aaaatttgtt agctgttgcc
1080
tttcagacct tcctttcagg aagagcagct tcattccagc gagagttgaa taatcctttg
1140
aaaaggatga aggaagaaga tattttggat cttctggagc aatgtgaaat tgatgatgaa
1200
aagttgatgg gaaaaactac caagactcga ggaccaaagc ctctgtgttc tatgcctgag
1260
agtactgaga taatgaaaag accaaagtac tgcagcagtg acagcagtta tgatagtagc
1320
agcagctctt cagaatctga cgaaaatgaa aaagaagagt accaaaataa gaaaagagaa
1380
aagcaagtta catataatct taaacctcc aaccactaca aattaattca acaaccagc
1440
tcataagac gttcagtcag ctgccctcgg tccatctctg ctcaatcacc ttccagtggg
1500
gacacccgcc cattttctgc tcaacaaatg atatctgtgt cacggccaac ttctgcatct
1560
cggtcacatt ccttaaaccg gggccttcc cctacatgag gcatctgcct cacagtaatg
1620
atgcctgctc taccaactct caagtgagtg agtctttgag gcaactgaaa acaaaagaac
1680

aagaagatga tctaacaagt cagaccttat ttgttctcaa agacatgaag atccggtttc
 1740
 caggaaag
 1748

<210> 2320

<211> 532

<212> PRT

<213> Homo sapiens

<400> 2320

Xaa	Ile	Lys	Ser	Arg	Ser	Leu	Asp	Tyr	Thr	Phe	Val	Pro	Arg	Thr	Trp
1				5					10					15	
Ile	Phe	Pro	Ala	Glu	Tyr	Thr	Gln	Phe	Gln	Asn	Tyr	Val	Lys	Glu	Leu
		20					25						30		
Lys	Lys	Lys	Arg	Lys	Gln	Lys	Thr	Phe	Ile	Val	Lys	Pro	Ala	Asn	Gly
		35				40						45			
Ala	Met	Gly	His	Gly	Ile	Ser	Leu	Ile	Arg	Asn	Gly	Asp	Lys	Leu	Pro
	50					55				60					
Ser	Gln	Asp	His	Leu	Ile	Val	Gln	Glu	Tyr	Ile	Glu	Lys	Pro	Phe	Leu
65				70						75					80
Met	Glu	Gly	Tyr	Lys	Phe	Asp	Leu	Arg	Ile	Tyr	Ile	Leu	Val	Thr	Ser
				85					90					95	
Cys	Asp	Pro	Leu	Lys	Ile	Phe	Leu	Tyr	His	Asp	Gly	Leu	Val	Arg	Met
		100						105					110		
Gly	Thr	Glu	Lys	Tyr	Ile	Pro	Pro	Asn	Glu	Ser	Asn	Leu	Thr	Gln	Leu
		115						120					125		
Tyr	Met	His	Leu	Thr	Asn	Tyr	Ser	Val	Asn	Lys	His	Asn	Glu	His	Phe
	130					135					140				
Glu	Arg	Asp	Glu	Thr	Glu	Asn	Lys	Gly	Ser	Lys	Arg	Ser	Ile	Lys	Trp
145					150					155					160
Phe	Thr	Glu	Phe	Leu	Gln	Ala	Asn	Gln	His	Asp	Val	Ala	Lys	Phe	Trp
				165					170					175	
Ser	Asp	Ile	Ser	Glu	Leu	Val	Val	Lys	Thr	Leu	Ile	Val	Ala	Glu	Pro
			180					185					190		
His	Val	Leu	His	Ala	Tyr	Arg	Met	Cys	Arg	Pro	Gly	Gln	Pro	Pro	Gly
		195					200					205			
Ser	Glu	Ser	Val	Cys	Phe	Glu	Val	Leu	Gly	Phe	Asp	Ile	Leu	Leu	Asp
	210					215					220				
Arg	Lys	Leu	Lys	Pro	Trp	Leu	Leu	Glu	Ile	Asn	Arg	Ala	Pro	Ser	Phe
225				230						235					240
Gly	Thr	Asp	Gln	Lys	Ile	Asp	Tyr	Asp	Val	Lys	Arg	Gly	Val	Leu	Leu
			245						250					255	
Asn	Ala	Leu	Lys	Leu	Leu	Asn	Ile	Arg	Thr	Ser	Asp	Lys	Arg	Arg	Asn
			260					265					270		
Leu	Ala	Lys	Gln	Lys	Ala	Glu	Ala	Gln	Arg	Arg	Leu	Tyr	Gly	Gln	Asn
		275						280					285		
Ser	Ile	Lys	Arg	Leu	Leu	Pro	Gly	Ser	Ser	Asp	Trp	Glu	Gln	Gln	Arg
	290					295					300				
His	Gln	Leu	Glu	Arg	Arg	Lys	Glu	Glu	Leu	Lys	Glu	Arg	Leu	Ala	Gln
305					310					315					320
Val	Arg	Lys	Gln	Ile	Ser	Arg	Glu	Glu	His	Glu	Asn	Arg	His	Met	Gly
			325						330					335	
Asn	Tyr	Arg	Arg	Ile	Tyr	Pro	Pro	Glu	Asp	Lys	Ala	Leu	Leu	Glu	Lys

[illegible]

```
<210> 2321
<211> 433
<212> DNA
<213> Homo sapiens
```

```

<400> 2321
caattgtgtg gacgtgtcta tgtgtgtttc taattctata ctatcttgaa aatgggttcag
60
cgttctagaa atacagccac ataatttttt ttgttttgaa aaactgctca gcaaattgcat
120
acaggtcata atggcaggta acagaccatt tattgaagtg ctgaaacaaa tagaaaacaa
180
agtccaggac accatcacag agcagtactt cccttgtgag atactctcag ctaagtaaga
240
attgagtgag acaacaataa aacaaatacc cataggcttt tcaaacagta acaaccgcgt
300
cagggttagc agcattttcta gaccttgatg gtaaaatgat gttctcaacc tttgctttca
360
gacactggat cactgcttaa gtagccttta tcttttcccc ctaatttttg ttgaagatgc
420
cagaggtgga gtg
433

```

```
<210> 2322
<211> 105
<212> PRT
<213> Homo sapiens
```

<400> 2322

Met Leu Leu Thr Leu Ser Gly Leu Leu Leu Phe Glu Lys Pro Met Gly
 1 5 10 15
 Ile Cys Phe Ile Val Val Ser Leu Asn Ser Tyr Leu Ala Glu Ser Ile
 20 25 30
 Ser Gln Gly Lys Tyr Cys Ser Val Met Val Ser Trp Thr Leu Phe Ser
 35 40 45
 Ile Cys Phe Ser Thr Ser Ile Asn Gly Leu Leu Pro Ala Ile Met Thr
 50 55 60
 Cys Met His Leu Leu Ser Ser Phe Ser Lys Gln Lys Lys Leu Cys Gly
 65 70 75 80
 Cys Ile Ser Arg Thr Leu Asn His Phe Gln Asp Ser Ile Glu Leu Glu
 85 90 95
 Thr His Ile Asp Thr Ser Thr Gln Leu
 100 105

<210> 2323

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2323

acgcgtcaaa actggcaaag ctggcggcctt agggggaggg gcaagtggac ttggaggccc
 60
 tcctccactg tgcaccccct tggaaaaaaa gcggaggggg catcaagtaa aagtttcttg
 120
 ccaggcagag ccagctcggc ggccccccgc acatagctgg ggtagcagg ggttgcttct
 180
 ctgccgggca cagcgncttc caggagccag ccggggagag ctgagccaag gccgaaggag
 240
 ccgcctgcgg gcttagccgc cccctccgc ccgttgggcc cagagcggac gctgggacgc
 300
 ccggggtctg gcagctctgc gcccggttag gagcggcgcg gcgagcatta gcctgcgtcc
 360
 tggagaagg ggcagcgcc gcagttgagg ccgaagcagc ccctcgcggg cgtaggatac
 420
 ctgtcagtga ggcgccgat tgcacggccc ccgggtagtg cctgccggcg aggggcggga
 480
 gctcgggtga cttggccatc cccatccccg gcccaggccc ggagggcggc cg
 532

<210> 2324

<211> 51

<212> PRT

<213> Homo sapiens

<400> 2324

Thr Arg Gln Asn Trp Gln Ser Trp Arg Leu Arg Gly Arg Gly Lys Trp
 1 5 10 15
 Thr Trp Arg Pro Ser Ser Thr Val His Pro Leu Gly Lys Lys Ala Glu
 20 25 30
 Gly Ala Ser Ser Lys Ser Phe Leu Pro Gly Arg Ala Ser Ser Ala Ala
 35 40 45
 Pro Arg Thr

50

<210> 2325

<211> 459

<212> DNA

<213> Homo sapiens

<400> 2325

```

nnacgcgtgc aggaccgcat gagcgccatc tgggagagag gagggttgaggaggaaagatg
60
gatgagaacc gttttgtggc cgttaccagt tccaacgcag ctaagcttct gaacctgtat
120
ccccgcaagg gccgcattat tcccggagcc gatgctgatg tgggtggtgtg ggaccagaa
180
gccacaaaga ccatctcagc cagcacgcag gtccagggag gagacttcaa cctgtatgag
240
aacatgcgct gccacggcgt gccactggtc accatcagcc gggggcgcggt cgtgtatgag
300
aacggcgctct tcatgtgcgc cgagggcacc ggcaagttct gtcccctgag gtccttccca
360
gacactgtct acaagaagct ggtccagaga gagaagactt taaagggttag aggagtggcc
420
cgactccct acctggggga tgctgctgtt gtcgtgcac
459

```

<210> 2326

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2326

```

Xaa Arg Val Gln Asp Arg Met Ser Ala Ile Trp Glu Arg Gly Val Val
1      5      10      15
Gly Gly Lys Met Asp Glu Asn Arg Phe Val Ala Val Thr Ser Ser Asn
20     25     30
Ala Ala Lys Leu Leu Asn Leu Tyr Pro Arg Lys Gly Arg Ile Ile Pro
35     40     45
Gly Ala Asp Ala Asp Val Val Val Trp Asp Pro Glu Ala Thr Lys Thr
50     55     60
Ile Ser Ala Ser Thr Gln Val Gln Gly Gly Asp Phe Asn Leu Tyr Glu
65     70     75     80
Asn Met Arg Cys His Gly Val Pro Leu Val Thr Ile Ser Arg Gly Arg
85     90     95
Val Val Tyr Glu Asn Gly Val Phe Met Cys Ala Glu Gly Thr Gly Lys
100    105    110
Phe Cys Pro Leu Arg Ser Phe Pro Asp Thr Val Tyr Lys Lys Leu Val
115    120    125
Gln Arg Glu Lys Thr Leu Lys Val Arg Gly Val Ala Arg Thr Pro Tyr
130    135    140
Leu Gly Asp Val Ala Val Val Val His
145    150

```

<210> 2327

<211> 599

<212> DNA

<213> Homo sapiens

<400> 2327

gaattccaga agatcaagta ttcctacgat gccctggaga agaagcagtt tctccccgtg
 60
 gcctttcctg tgggaaacgc cttctcatac tatcagagca acagaggctt ccaggaagac
 120
 tcagagatcc gagcagctga gaagaaattt gggagcaaca aggccgagat ggtggtgcct
 180
 gacttctcgg agcttttcaa ggagagagcc acagccccct tctttgtatt tcaggtgttc
 240
 tgtgtggggc tctggtgcct ggatgagtag tggtactaca gcgtctttac gctatccatg
 300
 ctggtggcgt tcgaggcctc gctggtgcag cagcagatgc ggaacatgtc ggagatccgg
 360
 aagatgggca acaagcctca catgatccag gtctaccgaa gccgcaagtg gaggccatt
 420
 gccagtgatg agatcgtacc aggggacatc gtctccatcg gtgaggccgg gtcccgctca
 480
 gtccagtgg gagccccagc ctcagggcct ctggccaacc ctctgcctc tgccctgcag
 540
 gccgtcccc acaggagaac ctggtgccat gtgacgtgct tctgctgca ggccgctgc
 599

<210> 2328

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2328

Glu	Phe	Gln	Lys	Ile	Lys	Tyr	Ser	Tyr	Asp	Ala	Leu	Glu	Lys	Lys	Gln
1				5					10					15	
Phe	Leu	Pro	Val	Ala	Phe	Pro	Val	Gly	Asn	Ala	Phe	Ser	Tyr	Tyr	Gln
			20					25					30		
Ser	Asn	Arg	Gly	Phe	Gln	Glu	Asp	Ser	Glu	Ile	Arg	Ala	Ala	Glu	Lys
		35					40					45			
Lys	Phe	Gly	Ser	Asn	Lys	Ala	Glu	Met	Val	Val	Pro	Asp	Phe	Ser	Glu
	50					55					60				
Leu	Phe	Lys	Glu	Arg	Ala	Thr	Ala	Pro	Phe	Phe	Val	Phe	Gln	Val	Phe
65					70					75					80
Cys	Val	Gly	Leu	Trp	Cys	Leu	Asp	Glu	Tyr	Trp	Tyr	Tyr	Ser	Val	Phe
				85					90					95	
Thr	Leu	Ser	Met	Leu	Val	Ala	Phe	Glu	Ala	Ser	Leu	Val	Gln	Gln	Gln
			100						105				110		
Met	Arg	Asn	Met	Ser	Glu	Ile	Arg	Lys	Met	Gly	Asn	Lys	Pro	His	Met
		115					120					125			
Ile	Gln	Val	Tyr	Arg	Ser	Arg	Lys	Trp	Arg	Pro	Ile	Ala	Ser	Asp	Glu
		130				135					140				
Ile	Val	Pro	Gly	Asp	Ile	Val	Ser	Ile	Gly	Glu	Ala	Gly	Phe	Arg	Ser
145					150					155					160
Val	Pro	Val	Gly	Ala	Pro	Ala	Ser	Gly	Pro	Leu	Ala	Asn	Pro	Pro	Ala
				165					170					175	
Ser	Ala	Leu	Gln	Ala	Ala	Pro	His	Arg	Arg	Thr	Trp	Cys	His	Val	Thr

180
Cys Phe Cys Cys Glu Ala Ala
195

185

190

<210> 2329
<211> 392
<212> DNA
<213> Homo sapiens

<400> 2329
acgcgttcca tgaatgctgg tgcggctgcc gcgattgcta tgtacgcctg gacgacgcag
60
tggtgtccaa agccacgcac tagctgatcg gggagaaccg tcaccctcta ggctcgtgtc
120
atgagcacgc aaccactga ggaaccactc cgactagttg tggcattcaa tccagtgcct
180
agtgcctccc gggttgctca tcatcatgcg acgagatttc gcctggcggt gcaggccttc
240
attgtcgtcg tcattggtgg tttgttgtgg gcgttgacgg ccgacgcctt ccagttatcg
300
acggtgatgt ggatgctcgg ggcattgggtg gtgctattcc tcgtgctttt cgtcatccag
360
aatctgcggc tgcacgccgc tcgcaaggat cc
392

<210> 2330
<211> 90
<212> PRT
<213> Homo sapiens

<400> 2330
Met Ser Thr Gln Pro Thr Glu Glu Pro Leu Arg Leu Val Val Ala Phe
1 5 10 15
Asn Pro Val Pro Ser Ala Ser Arg Val Ala His His His Ala Thr Arg
20 25 30
Phe Arg Leu Ala Val Gln Ala Phe Ile Val Val Val Ile Gly Gly Leu
35 40 45
Leu Trp Ala Leu Thr Ala Asp Ala Phe Gln Leu Ser Thr Val Met Trp
50 55 60
Met Leu Gly Ala Trp Val Val Leu Phe Leu Val Leu Phe Val Ile Gln
65 70 75 80
Asn Leu Arg Leu His Ala Ala Arg Lys Asp
85 90

<210> 2331
<211> 2813
<212> DNA
<213> Homo sapiens

<400> 2331
nnggagcaag agagttatta aaagtgggtg gaagacttcc tgggtgcagga ggctcactcc
60
gatttaaggt gcccgagtcc acgctgatgg actgccgtag acaactgaaa gacagtaagc
120

aaatTTtAtc tAttAcAAag aActTTaag ttgagaatAt tggacctctt cctataactg
180
tttcgtctct gaaaattaat gggTataact gccAaggtta tggattcgag gtgctggatt
240
gggattcagt ttcccttgga cccAAacaca tcccgcgata tcagcattgt gttcactcca
300
gactttacct cctcctgggt aattcgggac ctaagtcttg taaccgcagc ggacctagaa
360
tttcgcttca ctctcaatgt gactctccct catcacctgt tgcccttggtg tgcagacgtg
420
gttccaggac ccagctggga ggagtcattt tggaggctca cggctcttctt tgtcagtttg
480
tcctgttggt gtgtgatttt aatagccttc caacaagcac agtacattct catggaattc
540
atgaaaacaa gacagaggca aaatgctagc tcctcttcac agcaaaacaa tggctctatg
600
gatgtaatca gccccattc ttacaaaagc aattgcaaga actttctcga tacatatggc
660
ccctctgata aaggcagggg gaagaactgc cttccagtga acactcccca aagcaggatc
720
cagaatgctg caaagaggag ccagccacc tatggtcatt ctcagaagaa gcacaaatgc
780
tcagtgtatt acagtaaaca caaaaccagc acagctgcgg ccagcagcac cagcacgact
840
actgaggaaa aacagacttc acccctgggc agctcactgc ctgctgctaa agaggacatt
900
tgcactgatg ccatgcgtga gaactggatc agcctcagat atgcaagtgg cataaatgtc
960
aacctgcaga agaatttaac ctttcccaaa aacttactga ataaagaaga aaacacactg
1020
aaaaacacaa ttgttttcag taatccttct tcagaatgta gtatgaagga gggAatacag
1080
acatgtatgt ttcctaagga aactgacatt aaaacttcag agaacacagc tgagttcaag
1140
gaacgggagc tctgtccact gaagacctcc aagaaactac ctgaaaacca tttaccaaga
1200
aactcacctc agtaccacca gccagacttg ccagaaattt ccaggaaaaa taatgggaat
1260
aaccagcaag tacctgtcaa gaatgaagta gatcattgtg aaaatttgaa gaaggtggac
1320
acaaagcctt cttcagaaaa gaagattcac aaaacatcta gagaagacat gttttctgag
1380
aaacaggaca tacctttcgt agagcaagaa gatccttata ggaagaaaaa gcttcaggag
1440
aaaagagaag gaaatttaca aaatttaaAt tggagtaaaa gtcgaacatg tagaaagaac
1500
aagaaaagggt gtgttgctcc agtctcaagg cctcctgaac agagtgatct aaagcttggtg
1560
tgcagtgact ttgagaggtc tgagctgagc agtgacatca atgtaagaag ctggtgtata
1620
caggaaagca ctagggaggt ttgtaaagca gatgccgaaa ttgcaagcag tttacctgct
1680
gcccagagag aggcagggtta ctaccagaag cctgagaaga aatgtgtgga caagttctgc
1740

tccgattcca gctctgactg tgggagctcc tctggcagcg tgcgtgccag ccggggcagc
 1800
 tgggggagct ggagcagcac cagcagctcc gacggggata agaagcccat ggtggacgcc
 1860
 cagcacttcc tgccggccgg agacagtgtt tcacaaaatg attttccttc tgaagctccc
 1920
 atctccttga atctttctca taacatctgc aatcccatga ccgtgaatag tctcccacaa
 1980
 tacgcagagc cttcctgtcc cagccttctt gccggggcca caggtgttga agaagataaa
 2040
 ggtctttact cacctggaga cctgtggccc actccgccag tgtgtgtgac aagcagctta
 2100
 aactgcaccc tggagaacgg cgtgccttgt gtgattcagg agtcggcccc ggttcataat
 2160
 agtttcattg attggagtgc aacatgcgaa ggccagtttt ccagcgcata ctgtccattg
 2220
 gaattgaacg attacaatgc ctttccagaa gaaaacatga actatgccaa tggcttcccc
 2280
 tgtcctgcag atgttcagac agactttatt gatcacaact ctcagtctac ctggaacacc
 2340
 ccaccaaca tgccctgctgc ctggggacat gccagtttca tcagctctcc gccctacctc
 2400
 acaagcacc gaagcttgtc tccaatgtct ggactttttg gttccatctg ggccccgcaa
 2460
 agcgatgtgt atgaaaattg ctgccccatc aacccaccca cggaacattc gaccacatg
 2520
 gaaaaccaag cggtcgtgtg caaggaatac taccgggggt tcaaccggtt tcgcgcttat
 2580
 atgaacctgg acatatggac taccacagcg aataggaatg caaatttccc actgtctaga
 2640
 gactcgagtt actgtgggaa tgtgtgaaaa taattggatt tttaaacaat gtgaataaag
 2700
 aggcttgtgt tttgattact agtgtaaact ggttattgag atagattatg acattgggtgg
 2760
 atattttggc actttttatat gaaaataaat tttttaatga aaaaaaaaaa aaa
 2813

<210> 2332

<211> 789

<212> PRT

<213> Homo sapiens

<400> 2332

Pro Asp Phe Thr Ser Ser Trp Val Ile Arg Asp Leu Ser Leu Val Thr
 1 5 10 15
 Ala Ala Asp Leu Glu Phe Arg Phe Thr Leu Asn Val Thr Leu Pro His
 20 25 30
 His Leu Leu Pro Leu Cys Ala Asp Val Val Pro Gly Pro Ser Trp Glu
 35 40 45
 Glu Ser Phe Trp Arg Leu Thr Val Phe Phe Val Ser Leu Ser Leu Leu
 50 55 60
 Gly Val Ile Leu Ile Ala Phe Gln Gln Ala Gln Tyr Ile Leu Met Glu
 65 70 75 80
 Phe Met Lys Thr Arg Gln Arg Gln Asn Ala Ser Ser Ser Ser Gln Gln

85														90														95																																																																																																																																																																								
Asn	Asn	Gly	Pro	Met	Asp	Val	Ile	Ser	Pro	His	Ser	Tyr	Lys	Ser	Asn	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000
Cys	Lys	Asn	Phe	Leu	Asp	Thr	Tyr	Gly	Pro	Ser	Asp	Lys	Gly	Arg	Gly	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000			
Lys	Asn	Cys	Leu	Pro	Val	Asn	Thr	Pro	Gln	Ser	Arg	Ile	Gln	Asn	Ala	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670																																																																								

515	520	525
Asp Ser Val Ser Gln Asn Asp Phe Pro Ser Glu Ala Pro Ile Ser Leu		
530	535	540
Asn Leu Ser His Asn Ile Cys Asn Pro Met Thr Val Asn Ser Leu Pro		
545	550	555
Gln Tyr Ala Glu Pro Ser Cys Pro Ser Leu Pro Ala Gly Pro Thr Gly		
565	570	575
Val Glu Glu Asp Lys Gly Leu Tyr Ser Pro Gly Asp Leu Trp Pro Thr		
580	585	590
Pro Pro Val Cys Val Thr Ser Ser Leu Asn Cys Thr Leu Glu Asn Gly		
595	600	605
Val Pro Cys Val Ile Gln Glu Ser Ala Pro Val His Asn Ser Phe Ile		
610	615	620
Asp Trp Ser Ala Thr Cys Glu Gly Gln Phe Ser Ser Ala Tyr Cys Pro		
625	630	635
Leu Glu Leu Asn Asp Tyr Asn Ala Phe Pro Glu Glu Asn Met Asn Tyr		
645	650	655
Ala Asn Gly Phe Pro Cys Pro Ala Asp Val Gln Thr Asp Phe Ile Asp		
660	665	670
His Asn Ser Gln Ser Thr Trp Asn Thr Pro Pro Asn Met Pro Ala Ala		
675	680	685
Trp Gly His Ala Ser Phe Ile Ser Ser Pro Pro Tyr Leu Thr Ser Thr		
690	695	700
Arg Ser Leu Ser Pro Met Ser Gly Leu Phe Gly Ser Ile Trp Ala Pro		
705	710	715
Gln Ser Asp Val Tyr Glu Asn Cys Cys Pro Ile Asn Pro Thr Thr Glu		
725	730	735
His Ser Thr His Met Glu Asn Gln Ala Val Val Cys Lys Glu Tyr Tyr		
740	745	750
Pro Gly Phe Asn Pro Phe Arg Ala Tyr Met Asn Leu Asp Ile Trp Thr		
755	760	765
Thr Thr Ala Asn Arg Asn Ala Asn Phe Pro Leu Ser Arg Asp Ser Ser		
770	775	780
Tyr Cys Gly Asn Val		
785		

<210> 2333

<211> 501

<212> DNA

<213> Homo sapiens

<400> 2333

cgtatgattg gtgtgggaca aatactattc aacaagagta cctaaatcat tgtttaaggc
60
gaagtaataa atatgaatgg ggtgtatcat ataatagaaca acgaatatcc atatagtgc
120
gacgaagttc ttcacaaagc aaaatcatat ttgtcagcag atgaatatga gtatgtttta
180
aaaagctatc atattgctta tgaagcacat aaaggtcagt tccgaaaaaa cggattacca
240
tacattatgc atcctataca agttgcaggt attttaacag aaatgcgatt agacggaccg
300
acgattgtcg caggtttttt gcatgatgta attgaagata caccgtatac atttgaagat
360

gtaaaagaaa tgttcaatga agaagttgct cgaattgttg atggtgtgac gaagcttaaa
 420
 aaaataaaaat accgctcaaa agaagaacaa caagctgaaa atcatcgcaa gttattttatt
 480
 gcgattgccca aagatgtacg c
 501

<210> 2334
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2334
 Met Asn Gly Val Tyr His Ile Met Asn Asn Glu Tyr Pro Tyr Ser Ala
 1 5 10 15
 Asp Glu Val Leu His Lys Ala Lys Ser Tyr Leu Ser Ala Asp Glu Tyr
 20 25 30
 Glu Tyr Val Leu Lys Ser Tyr His Ile Ala Tyr Glu Ala His Lys Gly
 35 40 45
 Gln Phe Arg Lys Asn Gly Leu Pro Tyr Ile Met His Pro Ile Gln Val
 50 55 60
 Ala Gly Ile Leu Thr Glu Met Arg Leu Asp Gly Pro Thr Ile Val Ala
 65 70 75 80
 Gly Phe Leu His Asp Val Ile Glu Asp Thr Pro Tyr Thr Phe Glu Asp
 85 90 95
 Val Lys Glu Met Phe Asn Glu Glu Val Ala Arg Ile Val Asp Gly Val
 100 105 110
 Thr Lys Leu Lys Lys Ile Lys Tyr Arg Ser Lys Glu Glu Gln Gln Ala
 115 120 125
 Glu Asn His Arg Lys Leu Phe Ile Ala Ile Ala Lys Asp Val Arg
 130 135 140

<210> 2335
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 2335
 ggatcctgag cgtgggggact tctttgcact ccacagaacc ctcacttgta cctctacttt
 60
 tctctgcaga tggaccacac agcattcccc tgtggctgct gcagggaggg ctgtgagaac
 120
 cccatgggccc gtgtggaatt taatcaggca agagttcaga cccatttcat ccacacactc
 180
 accgcctgc agttggaaca ggaggctgag agcttttaggg agctggaggg ccctgcccag
 240
 ggcagcccac ccagccctgg tgaggaggcc ctggtccta ctttccact ggccaagccc
 300
 cccatgaaca atgagctggg agacaacagc tgcagcagcg acatgactga ttcttcaca
 360
 gcatttcat cagcatcggg cactagt
 387

<210> 2336

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2336

```

Met Asp His Thr Ala Phe Pro Cys Gly Cys Cys Arg Glu Gly Cys Glu
 1             5             10             15
Asn Pro Met Gly Arg Val Glu Phe Asn Gln Ala Arg Val Gln Thr His
          20             25             30
Phe Ile His Thr Leu Thr Arg Leu Gln Leu Glu Gln Glu Ala Glu Ser
          35             40             45
Phe Arg Glu Leu Glu Ala Pro Ala Gln Gly Ser Pro Pro Ser Pro Gly
          50             55             60
Glu Glu Ala Leu Val Pro Thr Phe Pro Leu Ala Lys Pro Pro Met Asn
65             70             75             80
Asn Glu Leu Gly Asp Asn Ser Cys Ser Ser Asp Met Thr Asp Ser Ser
          85             90             95
Thr Ala Ser Ser Ser Ala Ser Gly Thr Ser
          100             105

```

<210> 2337

<211> 359

<212> DNA

<213> Homo sapiens

<400> 2337

```

ngagaagagg aggagtcac gccaggggcc gccatctcca gccctcgcca agccgctggg
60
accatgtgca gctcaagaat gccctccggc ccatcggcct cggggcaggg gaagggcagc
120
ttctctgcac cagcttcctt gctgggctcc agggcccaca ggctgaggcc gggggcccag
180
gggtcaatgc caggcaccct gctattgagg aacctatcca ggaggaagga ctccgggcaga
240
cctgcgggat cctcgtcctc ccacgggtcc tcatggcaga agcagaagga gctggagtcg
300
ctgaggtccg tgggcaggcg ggctgggccc aacgtggggt caccgacctc ctcaaagct
359

```

<210> 2338

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2338

```

Met Cys Ser Ser Arg Met Ala Ser Gly Pro Ser Ala Ser Gly Gln Gly
 1             5             10             15
Lys Gly Ser Phe Ser Ala Pro Ala Ser Leu Leu Gly Ser Arg Ala His
          20             25             30
Arg Leu Arg Pro Gly Ala Gln Gly Ser Met Pro Gly Thr Leu Leu Leu
          35             40             45
Arg Asn Leu Ser Arg Arg Lys Asp Ser Gly Arg Pro Ala Gly Ser Ser
          50             55             60
Ser Ser His Gly Ser Ser Trp Gln Lys Gln Lys Glu Leu Glu Ser Leu

```

65 70 75 80
Arg Ser Val Gly Arg Arg Ala Gly Pro Asn Val Gly Ser Pro Thr Ser
 85 90 95
Ser Lys

```
<210> 2339
<211> 439
<212> DNA
<213> Homo sapiens
```

```
<400> 2339
acgcgtggcg tcagtcacagg cagacttggg aggtcgcccta caccgtcaac tcggttgca
60
ccctgtcctc caccttcgtc gtcgcagtcg tcagtgtcct gtggtttgtg ccctccgggc
120
actggtcccg gtagggcttg taatgctggg gcgctcggcg cgatgtgcc a gttccttgg
180
gagttactcc tctacactgg tgtgaacaag accggagaat tccccccat attctcgtt
240
ccgctcgtc ccgcacgtca ttgggactgg cttttacgcg gtagtggttg ccgtaactctg
300
gttgctctgc ggcaaggctg gcagggggat catgtcatga gtccgacggt gagcgagcgg
360
cgtcttagcg cgccaatgcg acgtggcatc gtggcactgt gcgtggcgat ggccttcgtg
420
ttgtcggggg gcggtgctg
439
```

```
<210> 2340
<211> 92
<212> PRT
<213> Homo sapiens
```

<400> 2340																
Met	Cys	Gln	Phe	Leu	Gly	Glu	Leu	Leu	Leu	Tyr	Thr	Gly	Val	Asn	Lys	
1				5					10					15		
Thr	Gly	Glu	Phe	Pro	Pro	Ile	Phe	Ser	Phe	Pro	Ala	Arg	Pro	Ala	Arg	
			20					25					30			
His	Trp	Asp	Trp	Leu	Leu	Arg	Gly	Ser	Gly	Cys	Arg	Thr	Leu	Val	Ala	
		35					40					45				
Leu	Arg	His	Gly	Arg	Gln	Gly	Asp	His	Val	Met	Ser	Pro	Thr	Val	Ser	
	50					55					60					
Glu	Arg	Arg	Leu	Ser	Ala	Pro	Met	Arg	Arg	Gly	Ile	Val	Ala	Leu	Cys	
65					70					75					80	
Val	Ala	Met	Ala	Phe	Val	Leu	Ser	Gly	Cys	Gly	Ala					
				85					90							

```
<210> 2341
<211> 411
<212> DNA
<213> Homo sapiens
```

<400> 2341

gccaaacctc cctccatcc tgcccaagat ggatcttgct gagcctccct ggcatatgcc
 60
 tctgcaggag gagccagagg aggtcacgga ggaggaggag gaaagggag aagaggagag
 120
 ggagaaggaa gcagaggagg aggaggaaga ggaagagctg ctctgtgag cgggtcccca
 180
 ggagccaccg cacaggccca tgccccttca cctagcacca gcagcagcac cagcagccag
 240
 agtcctgggg ccacccggca caggcaggag gattctggag accaggccac atcaggcnat
 300
 ggaagtggag agcagtgtga aaccacctt gtcagtgcc tcagtcaccc caagtacagt
 360
 ggccccgggg gttcagaact atagccagga gtctgggggc actgagtggc n
 411

<210> 2342

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2342

Ala	Ser	Leu	Ala	Tyr	Ala	Ser	Ala	Gly	Gly	Ala	Arg	Gly	Gly	His	Gly
1			5					10					15		
Gly	Gly	Gly	Gly	Lys	Gly	Arg	Arg	Gly	Glu	Gly	Glu	Gly	Ser	Arg	Gly
		20						25					30		
Gly	Gly	Gly	Arg	Gly	Arg	Ala	Ala	Pro	Val	Ser	Gly	Ser	Pro	Gly	Ala
		35					40					45			
Thr	Ala	Gln	Ala	His	Ala	Pro	Ser	Pro	Ser	Thr	Ser	Ser	Ser	Thr	Ser
	50					55				60					
Ser	Gln	Ser	Pro	Gly	Ala	Thr	Arg	His	Arg	Gln	Glu	Asp	Ser	Gly	Asp
65				70					75					80	
Gln	Ala	Thr	Ser	Gly	Xaa	Gly	Ser	Gly	Glu	Gln	Cys	Glu	Thr	His	Leu
			85					90						95	
Val	Ser	Ala	Leu	Ser	His	Pro	Lys	Tyr	Ser	Gly	Pro	Gly	Gly	Ser	Glu
			100					105						110	

Leu

<210> 2343

<211> 522

<212> DNA

<213> Homo sapiens

<400> 2343

ggcccgagcaga agatgctgat gccttcacag tttcccaacc agggccagca gggattctct
 60
 ggaggccagg gaccctacca agccatgtcc caggacatgg gcaataacca agacatgttc
 120
 agccctgatac agagctcaat gcccatgagc aacgtgggca ccacccggct cagccacatg
 180
 cctctgcccc ctgcgtccaa tctcctggg accgtgcatt cagccccaaa ccgggggcta
 240
 ggcaggcggc cttcggacct caccatcagt attaatacaga tgggctcacc gggcatgggg
 300

cacttgaagt cgcccaccct tagccaggtg cactcaccctc tggtcacctc gccctctgcc
 360
 aacctcaagt caccacagac tccctcacag atggtgccct tgccttctgc caaccgcca
 420
 ggacctctca agtcgccccca ggtcctcggc tcttccctca gtgtccgttc acccactggc
 480
 tcgcccagca ggctcaagtc tccttccatg gcgggtgcctt ct
 522

<210> 2344

<211> 174

<212> PRT

<213> Homo sapiens

<400> 2344

Gly	Pro	Gln	Lys	Met	Leu	Met	Pro	Ser	Gln	Phe	Pro	Asn	Gln	Gly	Gln
1			5					10					15		
Gln	Gly	Phe	Ser	Gly	Gly	Gln	Gly	Pro	Tyr	Gln	Ala	Met	Ser	Gln	Asp
		20					25					30			
Met	Gly	Asn	Thr	Gln	Asp	Met	Phe	Ser	Pro	Asp	Gln	Ser	Ser	Met	Pro
	35					40					45				
Met	Ser	Asn	Val	Gly	Thr	Thr	Arg	Leu	Ser	His	Met	Pro	Leu	Pro	Pro
	50				55					60					
Ala	Ser	Asn	Pro	Pro	Gly	Thr	Val	His	Ser	Ala	Pro	Asn	Arg	Gly	Leu
65					70				75					80	
Gly	Arg	Arg	Pro	Ser	Asp	Leu	Thr	Ile	Ser	Ile	Asn	Gln	Met	Gly	Ser
			85					90				95			
Pro	Gly	Met	Gly	His	Leu	Lys	Ser	Pro	Thr	Leu	Ser	Gln	Val	His	Ser
		100					105					110			
Pro	Leu	Val	Thr	Ser	Pro	Ser	Ala	Asn	Leu	Lys	Ser	Pro	Gln	Thr	Pro
		115					120					125			
Ser	Gln	Met	Val	Pro	Leu	Pro	Ser	Ala	Asn	Pro	Pro	Gly	Pro	Leu	Lys
	130					135				140					
Ser	Pro	Gln	Val	Leu	Gly	Ser	Ser	Leu	Ser	Val	Arg	Ser	Pro	Thr	Gly
145				150					155					160	
Ser	Pro	Ser	Arg	Leu	Lys	Ser	Pro	Ser	Met	Ala	Val	Pro	Ser		
			165					170							

<210> 2345

<211> 561

<212> DNA

<213> Homo sapiens

<400> 2345

nagatctccg tcttgatctt gagcaccgag gcactggggg gggaggacag cagccgcggg
 60
 ggccctccacc agcccgcgtc caggccgcct gggctcgacg cgctggacag gcgcccgcgg
 120
 ctggcgctgc cgcccttttg ccgtttccgc cttttcttgc gcttctggtg cttgctggag
 180
 gcctgcgcgc ccgcctcgcc tgcgctgtcc gagtccttgg cgctgtcgga cgtgagtgc
 240
 tcgcagttct gcagccgcag gtccgactcg ctctccacca tagctattaa tgccaagaat
 300

gcaaataaaa agaataatcat ctgggtgaat taccttctta gcaatcctga gtacaaggac
 360
 acacccatgg acatcgaca gctcccccat ctgccggaga aaacttccga atcctcggag
 420
 acatccgact ctgagtcaga ctctaaagac acctcaggta ttacagagga caacgagaac
 480
 tccaagnntc cgacgagaag gggaaccagt ccgagaacag cgaagaccg gagcccgacc
 540
 ggaagaagtc gggcaacgcg t
 561

<210> 2346
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 2346
 Xaa Ile Ser Val Leu Ile Leu Ser Thr Glu Ala Leu Gly Gly Glu Asp
 1 5 10 15
 Ser Ser Arg Gly Gly Leu His Gln Pro Ala Ser Arg Pro Pro Gly Leu
 20 25 30
 Asp Ala Leu Asp Arg Arg Arg Arg Leu Ala Leu Pro Pro Phe Cys Arg
 35 40 45
 Phe Arg Leu Phe Leu Arg Phe Trp Cys Leu Leu Glu Ala Cys Ala Pro
 50 55 60
 Ala Ser Pro Ala Leu Ser Glu Ser Leu Ala Leu Ser Asp Val Ser Asp
 65 70 75 80
 Ser Gln Phe Cys Ser Arg Arg Ser Asp Ser Leu Ser Thr Ile Ala Ile
 85 90 95
 Asn Ala Lys Asn Ala Asn Glu Lys Asn Ile Ile Trp Val Asn Tyr Leu
 100 105 110
 Leu Ser Asn Pro Glu Tyr Lys Asp Thr Pro Met Asp Ile Ala Gln Leu
 115 120 125
 Pro His Leu Pro Glu Lys Thr Ser Glu Ser Ser Glu Thr Ser Asp Ser
 130 135 140
 Glu Ser Asp Ser Lys Asp Thr Ser Gly Ile Thr Glu Asp Asn Glu Asn
 145 150 155 160
 Ser Lys Xaa Pro Thr Arg Arg Gly Thr Ser Pro Arg Thr Ala Lys Thr
 165 170 175
 Arg Ser Pro Thr Gly Arg Ser Arg Ala Thr Arg
 180 185

<210> 2347
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 2347
 atcagcgaag aacacggcag gaccctggaa gacgccgccg gtgaattgaa gcgtggtatc
 60
 gagaacgtcg agtacgcctg cgccgcgccg gaagtactga aggggtgaata cagccgtaac
 120
 gtcgggtccga acatcgacgc ctggtccgat ttccagccgc tgggcgtggt ggcggggatc
 180

acgccattca acttcccggc gatggtgccc ctgtggatgt atccgttggc gatcgtttgc
 240
 ggtaactgct ttatcctcaa gccgtccgag cgtgatccga gctcgacctt gctgatcgcc
 300
 cagctgttgc aggaagccgg ttgccccaaa ggtgtgctga acgtggtgca tggtgacaag
 360
 accgcggtgg acgcg
 375

<210> 2348
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 2348
 Ile Ser Glu Glu His Gly Arg Thr Leu Glu Asp Ala Ala Gly Glu Leu
 1 5 10 15
 Lys Arg Gly Ile Glu Asn Val Glu Tyr Ala Cys Ala Ala Pro Glu Val
 20 25 30
 Leu Lys Gly Glu Tyr Ser Arg Asn Val Gly Pro Asn Ile Asp Ala Trp
 35 40 45
 Ser Asp Phe Gln Pro Leu Gly Val Val Ala Gly Ile Thr Pro Phe Asn
 50 55 60
 Phe Pro Ala Met Val Pro Leu Trp Met Tyr Pro Leu Ala Ile Val Cys
 65 70 75 80
 Gly Asn Cys Phe Ile Leu Lys Pro Ser Glu Arg Asp Pro Ser Ser Thr
 85 90 95
 Leu Leu Ile Ala Gln Leu Leu Gln Glu Ala Gly Leu Pro Lys Gly Val
 100 105 110
 Leu Asn Val Val His Gly Asp Lys Thr Ala Val Asp Ala
 115 120 125

<210> 2349
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 2349
 nnnaaaaaaaa aaaaaacacaa tatttaaatgg acgcggttta ttcagcaggt
 60
 gctgacaaag tttttggtgt cccaggagat ttaaatctag cctttttaga tgatattatt
 120
 gcacataatc atattaaatg gattggtaat acaaataaac ttaatgcaag ttatgccgct
 180
 gacggatatg cacgtattaa tggcatcggt gcaatggtaa caacatttgg agtgggtgaa
 240
 ttaagtgtg tcaacggaat cgctggatct tatgctgagc gtgtaccagt tattgccatc
 300
 actggggcac ctactcgagc tgtagaacia gaaggcaa at acgttcacca ttccttggc
 360
 gaaggaactt ttgatgatta tagaaaaatg tttagacctt ttacaacagc gcaagct
 417

<210> 2350

<211> 139
 <212> PRT
 <213> Homo sapiens

<400> 2350

Xaa	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Thr	Gln	Tyr	Leu	Met	Asp	Ala	Val
1				5					10						15	
Tyr	Ser	Ala	Gly	Ala	Asp	Lys	Val	Phe	Gly	Val	Pro	Gly	Asp	Phe	Asn	
		20						25					30			
Leu	Ala	Phe	Leu	Asp	Asp	Ile	Ile	Ala	His	Asn	His	Ile	Lys	Trp	Ile	
		35				40						45				
Gly	Asn	Thr	Asn	Glu	Leu	Asn	Ala	Ser	Tyr	Ala	Ala	Asp	Gly	Tyr	Ala	
	50					55					60					
Arg	Ile	Asn	Gly	Ile	Gly	Ala	Met	Val	Thr	Thr	Phe	Gly	Val	Gly	Glu	
65					70				75						80	
Leu	Ser	Ala	Val	Asn	Gly	Ile	Ala	Gly	Ser	Tyr	Ala	Glu	Arg	Val	Pro	
			85					90					95			
Val	Ile	Ala	Ile	Thr	Gly	Ala	Pro	Thr	Arg	Ala	Val	Glu	Gln	Glu	Gly	
		100					105						110			
Lys	Tyr	Val	His	His	Ser	Leu	Gly	Glu	Gly	Thr	Phe	Asp	Asp	Tyr	Arg	
	115					120					125					
Lys	Met	Phe	Glu	Pro	Ile	Thr	Thr	Ala	Gln	Ala						
	130					135										

<210> 2351
 <211> 696
 <212> DNA
 <213> Homo sapiens

<400> 2351

```

naccggttgcc cgcgcgataa ctctgggtgag ggtcttgctg gggccctgct ggccttggtt
60
ggctccgccc agctgtgcga ccgttcctgg atcaccgacc agtatgaccg gttcgtgcgt
120
ggcaatactg tgctcgctca gccgaatgat gccggcatga ttcgtattga cgacaacctc
180
ggcatcgcg cgtccttgga cgctaaccga cgccagacca cccttaacct gtatcttggc
240
gccagctgg ctctttgcga ggcttaccgg aatgtggctg tctctggcgc aactccggtg
300
gctgtcactg attgcctcaa ttatggctcc ccgtacgata ccgatgtcat gtggcaattc
360
gacgagacca tccttggctt ggttgacggc tgccgcgagc ttggcgtgcc gggtacgggc
420
ggtaacgttt ccctgcacaa ccgcactgga gatgagtcga ttcggcctac tccgctcggt
480
ggtgtgctcg gcgttattga tgacgtgcat cgtcgcaccc cgtcggcctt cgcacacgac
540
ggcgacgctg tcttgctgct aggaacgacg aagtgcgagt tcggcggatc ggtctatgag
600
gacgtcatcc acgctggcca cctaggcggt atgccccga tgcccgacct gaatgccgag
660
aaggccctgg ccgcggtgat ggtggaagcg tcgaag
696

```

<210> 2352
 <211> 232
 <212> PRT
 <213> Homo sapiens

<400> 2352
 Xaa Ala Leu Pro Arg Asp Asn Ser Gly Glu Gly Leu Ala Gly Ala Leu
 1 5 10 15
 Leu Ala Leu Val Gly Ser Ala Gln Leu Cys Asp Arg Ser Trp Ile Thr
 20 25 30
 Asp Gln Tyr Asp Arg Phe Val Arg Gly Asn Thr Val Leu Ala Gln Pro
 35 40 45
 Asn Asp Ala Gly Met Ile Arg Ile Asp Asp Asn Leu Gly Ile Ala Leu
 50 55 60
 Ser Leu Asp Ala Asn Gly Arg Gln Thr Thr Leu Asn Pro Tyr Leu Gly
 65 70 75 80
 Ala Gln Leu Ala Leu Cys Glu Ala Tyr Arg Asn Val Ala Val Ser Gly
 85 90 95
 Ala Thr Pro Val Ala Val Thr Asp Cys Leu Asn Tyr Gly Ser Pro Tyr
 100 105 110
 Asp Pro Asp Val Met Trp Gln Phe Asp Glu Thr Ile Leu Gly Leu Val
 115 120 125
 Asp Gly Cys Arg Glu Leu Gly Val Pro Val Thr Gly Gly Asn Val Ser
 130 135 140
 Leu His Asn Arg Thr Gly Asp Glu Ser Ile Arg Pro Thr Pro Leu Val
 145 150 155 160
 Gly Val Leu Gly Val Ile Asp Asp Val His Arg Arg Ile Pro Ser Ala
 165 170 175
 Phe Ala His Asp Gly Asp Ala Val Leu Leu Leu Gly Thr Thr Lys Cys
 180 185 190
 Glu Phe Gly Gly Ser Val Tyr Glu Asp Val Ile His Ala Gly His Leu
 195 200 205
 Gly Gly Met Pro Pro Met Pro Asp Leu Asn Ala Glu Lys Ala Leu Ala
 210 215 220
 Ala Val Met Val Glu Ala Ser Lys
 225 230

<210> 2353
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 2353
 nnagcaatct cagaagaatt gctggctgag ttttcaaact atggtgtcaa agtagtaccg
 60
 atttcaggtg atgtttcaga ctttgcagat gccaaagcgta tggtagatca agcgattaca
 120
 gaactcgggtt ctgttgatgt cttgggtcaac aatgctggga tcaactcaaga tacgcttatg
 180
 ctcaagatga ccgaagaaga ctttgaaaaa gtgattaaga tcaacttgac aggtgccttc
 240
 aacatgacgc aagcagtctt gaaacagatg atcaaggcac gtgaaggtgc gattatcaac
 300

atgtctagtg tggctcggtt gatgggaaat atcggacaag ccaactatgc agcttctaaa
 360
 gcaggcttga ttggttttac caagtcagtt gcacgtgaag ttgccaatcg caacgtacgc
 420
 gt
 422

<210> 2354

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2354

Xaa	Ala	Ile	Ser	Glu	Glu	Leu	Leu	Ala	Glu	Phe	Ser	Asn	Tyr	Gly	Val
1				5					10					15	
Lys	Val	Val	Pro	Ile	Ser	Gly	Asp	Val	Ser	Asp	Phe	Ala	Asp	Ala	Lys
			20					25					30		
Arg	Met	Val	Asp	Gln	Ala	Ile	Thr	Glu	Leu	Gly	Ser	Val	Asp	Val	Leu
		35					40					45			
Val	Asn	Asn	Ala	Gly	Ile	Thr	Gln	Asp	Thr	Leu	Met	Leu	Lys	Met	Thr
	50					55				60					
Glu	Glu	Asp	Phe	Glu	Lys	Val	Ile	Lys	Ile	Asn	Leu	Thr	Gly	Ala	Phe
65				70					75					80	
Asn	Met	Thr	Gln	Ala	Val	Leu	Lys	Gln	Met	Ile	Lys	Ala	Arg	Glu	Gly
			85					90					95		
Ala	Ile	Ile	Asn	Met	Ser	Ser	Val	Val	Gly	Leu	Met	Gly	Asn	Ile	Gly
			100					105					110		
Gln	Ala	Asn	Tyr	Ala	Ala	Ser	Lys	Ala	Gly	Leu	Ile	Gly	Phe	Thr	Lys
		115					120					125			
Ser	Val	Ala	Arg	Glu	Val	Ala	Asn	Arg	Asn	Val	Arg				
	130					135					140				

<210> 2355

<211> 5191

<212> DNA

<213> Homo sapiens

<400> 2355

cttgccaagt ttgacggtga agtgatctgt gaacctccca acaacaaact ggacaaattc
 60
 agcggaaccc tctactggaa ggaaaataag ttccctctga gcaaccagaa catgctgctg
 120
 cggggctgtg tgctgcgaaa caccgagtgg tgcttcgggc tggatcatctt tgcaggtcct
 180
 gacactaagc tgatgcaaaa cagcggcaga acaaagttca aaagaacgag tatcgatcgc
 240
 ctaatgaata ccctggtgct ctggattttt ggattcctgg tttgcatggg ggtgatcctg
 300
 gccattggca atgccatctg ggagcacgag gtggggatgc gtttccaggt ctacctgccg
 360
 tgggatgagg cagtggacag tgccttcttc tctggcttcc tctccttctg gtcctacatc
 420
 atcatcctca acaccgttgt gccattttca ctctatgtca gtgtggaggt catccgtctg
 480

ggccacagct acttcatcaa ctgggataag aagatgttct gcatgaagaa gcggacgcct
 540
 gcagaagccc gcaccaccac cctaaacgag gagctgggcc aggtggagta catcttctcc
 600
 gacaagacgg gcaccctcac ccagaacatc atggttttca acaagtgtc catcaatggc
 660
 cacagctatg gtgatgtgtt tgacgtcctg ggacacaaag ctgaattggg agagaggcct
 720
 gaacctgttg acttctcctt caatcctctg gctgacaaga agttcttatt ttgggacccc
 780 aggtgtcaa gatcggggac cccacacgc atgagttctt ccgcctcctt 840
 tccctgtgtc atactgtcat gtcagaagaa aagaacgaag gagagctgta ctacaaagct
 900
 cagtccccag atgagggggc cctggtcacc gcagccagga actttgggtt tgttttccgc
 960
 tctcgacccc ccaaaacaat caccgtccat gagatgggca cagccatcac ctaccagctg
 1020
 ctggccatcc tggacttcaa caacatccgc aagcggatgt cggtcatagt gcggaatcca
 1080
 gaggggaaga tccgactcta ctgcaaagg gctgacacta tcctactgga cagactgcac
 1140
 cactccactc aagagctgct caacaccacc atggaccacc ttaatgagta cgcaggggaa
 1200
 gggctgagga ccctggtgct ggcctacaag gatctggatg aagagtacta cgaggagtgg
 1260
 gctgagcgac gctccaggc cagcctggcc caggacagcc gggaggacag gctggctagc
 1320
 atctatgagg aggttgagaa caacatgatg ctgctgggtg caacggccat tgaggacaaa
 1380
 cttcagcaag gggttccaga gaccattgcc ctctgacac tggccaacat caagatttgg
 1440
 gtgctaaccg gagacaagca agagacggct gtgaacatcg gctattcctg caagatgctg
 1500
 acggatgaca tgactgaggt tttcatagtc actggccata ctgtcctgga ggtgcgggag
 1560
 gagnctcagg aaagcccgga agaagatgat ggactcatcn nccgctccgt aggcaacggc
 1620
 ttcacctatc aggacaagct ttcttcttcc aagctaactt ctgtcctgga ggccgttgc
 1680
 ggggagtacg ccctggtcat aaatggtcac agcctggccc acgactgga ggcagacatg
 1740
 gagctggagt ttctggagac agcgtgtgcc tgcaaagctg tcatctgctg ccgggtgacc
 1800
 cccttgcaag aggcacagggt ggtagaactg gtcaagaagt acaagaaggc tgtgacgctt
 1860
 gccattggag acggagccaa tgatgtcagc atgatcaaaa cggctcacat tgggtggtgg
 1920
 atcagtgggc aggaagggat ccaggctgtc ttggcctccg attactcctt ctcccagttc
 1980
 aagttcctgc agcgcctcct gctggtgcat gggcgctggc cctacctgcg aatgtgcaag
 2040
 tttctttgct atttcttcta caaaaacttt gctttcacca tgggtccactt ctgggttggc
 2100
 ttcttctgtg gcttctcagc ccagaccgtc tatgaccagt atttcatcac cctgtataac
 2160

atcgtgtaca cctccctgcc agtcctggct atgggggtct ttgatcagga tgtccccgag
2220
cagcggagca tggagtaccc taagctgtat gagccgggcc agctgaacct tctcttcaac
2280
aagcgggagt tcttcatctg catcgcccag ggcattctaca cctccgtgct catgttcttc
2340
attccctatg ggggtgttgc tgatgccacc cgggatgatg gcactcagct ggctgactac
2400
cagtcctttg cagtcactgt ggccacatcc ttggtcattg tggttagcgt gcagattggg
2460
ctcgacacag gctactggac ggccatcaac cacttcttca tctggggaag ccttgtgtt
2520
tactttgcca tctcttttgc catgcacagc aatgggctct tcgacatgtt tcccaaccag
2580
ttccggtttg tggggaatgc ccagaacacc ttggcccagc ccacggtgtg gctgaccatt
2640
gtgtcacca cagtcgtctg catcatgccc gtggttgcct tccgattcct caggctcaac
2700
ctgaagccgg atctctccga cacgggtccgc tacacacagc tcgtgaggaa gaagcagaag
2760
gcccagcacc gctgcatgcy gcgggttggc cgcactggct cccggcgctc cggctatgcc
2820
ttctcccatc aggagggctt cggggagctc atcatgtctg gcaagaacat gcggctgagc
2880
tctctcgcgc tctccagctt caccaccgcg tccagctcca gctggattga gagcctgcgc
2940
aggaagaaga gtgacagtgc cagtagcccc agtggcgggtg ccgacaagcc cctcaagggc
3000
tgaaggccga ggatggatgc cctgtgccag tgaccagagc acccagggct ggccagtcac
3060
tgagggaaca gcgtctcgga actgctggtc ctcatctctt gcttcccgtc cccccgtag
3120
actctgtcct gctgggtcca ccacacatgg ctgggacatc tgttcccagc ttagggcct
3180
tccaccagct ggggagctag agggagcagg cccaagggca gagcagaggc tgaggcacgg
3240
ggagccagcc ccactcgggg accagaagtg gaaccaaaaa caagaaaaaa ctgtgagaga
3300
ttgtgtctgc ccctgccctg cctgggaccc acagggagac tataatctcc ttatTTTTTT
3360
actcctactc cccagagggg ccctagtgcc tctgttcttg aattacataa gaatgtacca
3420
tgccgggaag ccagagacct gcaggggcct cggccctca catcgtgtat gtctctcctt
3480
gatttgtgtt gtgtccagtt tggttttgtc tttttttatt tggcaagtgg aggaggcttt
3540
tatgtgactt ttatgttgtg gttggtgtct taactctcct gggaaaagga ggctggcaca
3600
cactgggatg ccgcagcctg gccggctgtg gggtggtttg ggaggatcca tgtcggctct
3660
gcctgcagtg accagtgtc tgtggggcag aggagctgac cagggagggg ggtacccatg
3720
agcagagggg agtgggagag tgtaaaggag ggtttggctc tgtctgcttc ctcaccttga
3780

gagtaaagtg ctgccctctg cccccaacac acacacatat caattcctgg attccttagt
3840
cctgctggcc ttgggctgga gcctaggaaa gtggccccc aatccttagt gagctaaagc
3900
tgggtctgaa atttggtcag tggggagggg tagttttctt ttcttttttc tttttctttt
3960
tttctttttt tttttgagat ggagtctcac tcttgtcacc taggcaagag tgcaatggca
4020
caatctcagc tcaactgcaac ctccacctcc tgggttcaag cgattctcct gcctcagcct
4080
cctgagtagc tgggattaca ggcacacacc accacgcttg gttaattttt gtatttttag
4140
tagagatgtt tcaccatgtt ggccaggcta gtcttgaatt cctgacctcc tgacctgccc
4200
acctcaacct cccaaagtgc tgagattaca ggcgtgagcc accacacca gctcagggag
4260
gcgtagtttt cttaaatttt aaatttaaac ccaagtttat tggcagactc ctttttgacc
4320
tccctttgcc tccccatctg gtgctttctt gcactctacac cccagggccc tgtggtgggg
4380
ctgcaggggg aagctgtgca cctgagatga ggctggaacg ggaattggcc tctctgctcc
4440
cttcttcagt aagcaaggag ccccgccccct caggcccagc ctctggcaag aggtggtgga
4500
atccttgtgc cgggtagtag aggaggataa gggcaaaacc aggcccaggc cagtgcctgg
4560
cttggctctg atgggacact gtcagagttt ggccacagcc tgtcctttac ttcattccaca
4620
cctatgaagc tattccctaa ataaggcatt tccaagtta gtcgctacct aatcagcctt
4680
gagaagaatc ctttcctctt ctttgatagt gggtcggggg attcttcagg aatggttttg
4740
agctgggagt gggtaggggg attttaaatg ttccatatgg gagccccaaa ggaactggat
4800
gggctgcagt gaggtggggg cgggtgggca ggggaatggga gaggggaagt cttggcaggg
4860
aaatcccttt tggccacaca gtttacaac ccagtatcat gtctgtctgt gtgtctctca
4920
aggtagagat ctgattttta taccaaagag gaaatgattt tttttcatat tttgtttgtc
4980
tatattatat aaatatatat atacagttat atatatatat atattatttt ttggttctct
5040
ctcgtttttt agggagggaa gaaagtacca agttgcattg agctgtaatt aaggaacatt
5100
ataatttatg acacatttct atacttgcaa aaattatatc attttatgga tataagagaa
5160
aatgccttt ttataaaatt tcaatttctg a
5191

<210> 2356

<211> 1000

<212> PRT

<213> Homo sapiens

<400> 2356

```

Leu Ala Lys Phe Asp Gly Glu Val Ile Cys Glu Pro Pro Asn Asn Lys
 1          5          10          15
Leu Asp Lys Phe Ser Gly Thr Leu Tyr Trp Lys Glu Asn Lys Phe Pro
          20          25          30
Leu Ser Asn Gln Asn Met Leu Leu Arg Gly Cys Val Leu Arg Asn Thr
          35          40          45
Glu Trp Cys Phe Gly Leu Val Ile Phe Ala Gly Pro Asp Thr Lys Leu
          50          55          60
Met Gln Asn Ser Gly Arg Thr Lys Phe Lys Arg Thr Ser Ile Asp Arg
65          70          75          80
Leu Met Asn Thr Leu Val Leu Trp Ile Phe Gly Phe Leu Val Cys Met
          85          90          95
Gly Val Ile Leu Ala Ile Gly Asn Ala Ile Trp Glu His Glu Val Gly
          100          105          110
Met Arg Phe Gln Val Tyr Leu Pro Trp Asp Glu Ala Val Asp Ser Ala
          115          120          125
Phe Phe Ser Gly Phe Leu Ser Phe Trp Ser Tyr Ile Ile Leu Asn
          130          135          140
Thr Val Val Pro Ile Ser Leu Tyr Val Ser Val Glu Val Ile Arg Leu
          145          150          155          160
Gly His Ser Tyr Phe Ile Asn Trp Asp Lys Lys Met Phe Cys Met Lys
          165          170          175
Lys Arg Thr Pro Ala Glu Ala Arg Thr Thr Thr Leu Asn Glu Glu Leu
          180          185          190
Gly Gln Val Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr Leu Thr Gln
          195          200          205
Asn Ile Met Val Phe Asn Lys Cys Ser Ile Asn Gly His Ser Tyr Gly
          210          215          220
Asp Val Phe Asp Val Leu Gly His Lys Ala Glu Leu Gly Glu Arg Pro
          225          230          235          240
Glu Pro Val Asp Phe Ser Phe Asn Pro Leu Ala Asp Lys Lys Phe Leu
          245          250          255
Phe Trp Asp Pro Ser Leu Leu Glu Ala Val Lys Ile Gly Asp Pro His
          260          265          270
Thr His Glu Phe Phe Arg Leu Leu Ser Leu Cys His Thr Val Met Ser
          275          280          285
Glu Glu Lys Asn Glu Gly Glu Leu Tyr Tyr Lys Ala Gln Ser Pro Asp
          290          295          300
Glu Gly Ala Leu Val Thr Ala Ala Arg Asn Phe Gly Phe Val Phe Arg
          305          310          315          320
Ser Arg Thr Pro Lys Thr Ile Thr Val His Glu Met Gly Thr Ala Ile
          325          330          335
Thr Tyr Gln Leu Leu Ala Ile Leu Asp Phe Asn Asn Ile Arg Lys Arg
          340          345          350
Met Ser Val Ile Val Arg Asn Pro Glu Gly Lys Ile Arg Leu Tyr Cys
          355          360          365
Lys Gly Ala Asp Thr Ile Leu Leu Asp Arg Leu His His Ser Thr Gln
          370          375          380
Glu Leu Leu Asn Thr Thr Met Asp His Leu Asn Glu Tyr Ala Gly Glu
          385          390          395          400
Gly Leu Arg Thr Leu Val Leu Ala Tyr Lys Asp Leu Asp Glu Glu Tyr
          405          410          415
Tyr Glu Glu Trp Ala Glu Arg Arg Leu Gln Ala Ser Leu Ala Gln Asp

```

420 425 430
 Ser Arg Glu Asp Arg Leu Ala Ser Ile Tyr Glu Glu Val Glu Asn Asn
 435 440 445
 Met Met Leu Leu Gly Ala Thr Ala Ile Glu Asp Lys Leu Gln Gln Gly
 450 455 460
 Val Pro Glu Thr Ile Ala Leu Leu Thr Leu Ala Asn Ile Lys Ile Trp
 465 470 475 480
 Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Val Asn Ile Gly Tyr Ser
 485 490 495
 Cys Lys Met Leu Thr Asp Asp Met Thr Glu Val Phe Ile Val Thr Gly
 500 505 510
 His Thr Val Leu Glu Val Arg Glu Glu Xaa Gln Glu Ser Pro Gly Glu
 515 520 525
 Asp Asp Gly Leu Ile Xaa Arg Ser Val Gly Asn Gly Phe Thr Tyr Gln
 530 535 540
 Asp Lys Leu Ser Ser Ser Lys Leu Thr Ser Val Leu Glu Ala Val Ala
 545 550 555 560
 Gly Glu Tyr Ala Leu Val Ile Asn Gly His Ser Leu Ala His Ala Leu
 565 570 575
 Glu Ala Asp Met Glu Leu Glu Phe Leu Glu Thr Ala Cys Ala Cys Lys
 580 585 590
 Ala Val Ile Cys Cys Arg Val Thr Pro Leu Gln Lys Ala Gln Val Val
 595 600 605
 Glu Leu Val Lys Lys Tyr Lys Lys Ala Val Thr Leu Ala Ile Gly Asp
 610 615 620
 Gly Ala Asn Asp Val Ser Met Ile Lys Thr Ala His Ile Gly Val Gly
 625 630 635 640
 Ile Ser Gly Gln Glu Gly Ile Gln Ala Val Leu Ala Ser Asp Tyr Ser
 645 650 655
 Phe Ser Gln Phe Lys Phe Leu Gln Arg Leu Leu Leu Val His Gly Arg
 660 665 670
 Trp Ser Tyr Leu Arg Met Cys Lys Phe Leu Cys Tyr Phe Phe Tyr Lys
 675 680 685
 Asn Phe Ala Phe Thr Met Val His Phe Trp Phe Gly Phe Phe Cys Gly
 690 695 700
 Phe Ser Ala Gln Thr Val Tyr Asp Gln Tyr Phe Ile Thr Leu Tyr Asn
 705 710 715 720
 Ile Val Tyr Thr Ser Leu Pro Val Leu Ala Met Gly Val Phe Asp Gln
 725 730 735
 Asp Val Pro Glu Gln Arg Ser Met Glu Tyr Pro Lys Leu Tyr Glu Pro
 740 745 750
 Gly Gln Leu Asn Leu Leu Phe Asn Lys Arg Glu Phe Phe Ile Cys Ile
 755 760 765
 Ala Gln Gly Ile Tyr Thr Ser Val Leu Met Phe Phe Ile Pro Tyr Gly
 770 775 780
 Val Phe Ala Asp Ala Thr Arg Asp Asp Gly Thr Gln Leu Ala Asp Tyr
 785 790 795 800
 Gln Ser Phe Ala Val Thr Val Ala Thr Ser Leu Val Ile Val Val Ser
 805 810 815
 Val Gln Ile Gly Leu Asp Thr Gly Tyr Trp Thr Ala Ile Asn His Phe
 820 825 830
 Phe Ile Trp Gly Ser Leu Ala Val Tyr Phe Ala Ile Leu Phe Ala Met
 835 840 845
 His Ser Asn Gly Leu Phe Asp Met Phe Pro Asn Gln Phe Arg Phe Val

850	855	860
Gly Asn Ala Gln Asn Thr Leu Ala Gln Pro Thr Val Trp Leu Thr Ile		
865	870	875
Val Leu Thr Thr Val Val Cys Ile Met Pro Val Val Ala Phe Arg Phe		880
	885	890
Leu Arg Leu Asn Leu Lys Pro Asp Leu Ser Asp Thr Val Arg Tyr Thr		895
	900	905
Gln Leu Val Arg Lys Lys Gln Lys Ala Gln His Arg Cys Met Arg Arg		910
	915	920
Val Gly Arg Thr Gly Ser Arg Arg Ser Gly Tyr Ala Phe Ser His Gln		925
	930	935
Glu Gly Phe Gly Glu Leu Ile Met Ser Gly Lys Asn Met Arg Leu Ser		940
945	950	955
Ser Leu Ala Leu Ser Ser Phe Thr Thr Arg Ser Ser Ser Ser Trp Ile		960
	965	970
Glu Ser Leu Arg Arg Lys Lys Ser Asp Ser Ala Ser Ser Pro Ser Gly		975
	980	985
Gly Ala Asp Lys Pro Leu Lys Gly		990
995	1000	

<210> 2357
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 2357
 nacgcgttac gttgctggag gtcaatgcgt catgccgata catcatcaga tccgcactgt
 60
 ggcgaccatc cttgccacca ttaccattgc cgccctagtgc ctcacgggct gtaatacggc
 120
 ggtgcgccaa acggtgaaga cgagggtttcc cgcaagctca tcaccgtgtg ggggtgctgag
 180
 ccacaaaacc cactcctgcc agccgacacc aatgaaaccg gcggcacgaa agtcatcacc
 240
 gccttggttcg ccggcctggt gtattacgac gccgacggca aaaccataa tgatgtggcc
 300
 aaatccattg acttcgatgg cgaccgcacc tacacggtga cgctgcggaa aaccagattc
 360
 gccgacggta ctgaggtgaa ggcccataat tttgtgaaag ctgccgca
 408

<210> 2358
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2358
 Tyr Gly Gly Ala Pro Asn Gly Glu Asp Glu Val Ser Arg Lys Leu Ile
 1 5 10 15
 Thr Val Trp Gly Ala Glu Pro Gln Asn Pro Leu Leu Pro Ala Asp Thr
 20 25 30
 Asn Glu Thr Gly Gly Thr Lys Val Ile Thr Ala Leu Phe Ala Gly Leu
 35 40 45
 Val Tyr Tyr Asp Ala Asp Gly Lys Thr His Asn Asp Val Ala Lys Ser

50 55 60
 Ile Asp Phe Asp Gly Asp Arg Thr Tyr Thr Val Thr Leu Arg Lys Thr
 65 70 75 80
 Arg Phe Ala Asp Gly Thr Glu Val Lys Ala His Asn Phe Val Lys Ala
 85 90 95
 Ala Ala

<210> 2359
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 2359
 aacctgaaca tgttgggatt gagagagccc gaggtgtatg ggtcggaaac attggccgac
 60
 gttgagcaga cgtgtcgtga gtacggcgaa gaacttgggc ttgtaattga gtttcagcaa
 120
 accaatcacg aagggc aaat gattgaatgg attcaccacg cccgtagaag gattgcgggg
 180
 attgtgatca atccaggagc atggacccat acatcggcag ccattccacga tgcgttgatt
 240
 gcagccgagg taccggtgat tgagggttcac atctcaa atg tccacaggcg tgaagatttc
 300
 aggcattttt cctacgtgtc acgc
 324

<210> 2360
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2360
 Asn Leu Asn Met Leu Gly Leu Arg Glu Pro Glu Val Tyr Gly Ser Glu
 1 5 10 15
 Thr Leu Ala Asp Val Glu Gln Thr Cys Arg Glu Tyr Gly Glu Glu Leu
 20 25 30
 Gly Leu Val Ile Glu Phe Gln Gln Thr Asn His Glu Gly Gln Met Ile
 35 40 45
 Glu Trp Ile His His Ala Arg Arg Arg Ile Ala Gly Ile Val Ile Asn
 50 55 60
 Pro Gly Ala Trp Thr His Thr Ser Ala Ala Ile His Asp Ala Leu Ile
 65 70 75 80
 Ala Ala Glu Val Pro Val Ile Glu Val His Ile Ser Asn Val His Arg
 85 90 95
 Arg Glu Asp Phe Arg His Phe Ser Tyr Val Ser Arg
 100 105

<210> 2361
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 2361

tccggatggg actccaacct acttgggggt actgggggtg cagaaagaac gcggccctgt
 60
 gtcagggacc ggtatggaag cctcagtagg gctggagccc catcatgccc cttccgagca
 120
 gatcaacaca gaccagctgg tcaaggggga cctccatccc tgccctgtcc tcacggagct
 180
 gtagggagag tcccaaaggc aggtgggtggg gctggggcct ccaacagctg ggtcctctca
 240
 tatcacttaa ggcccaacag cacacagtct cccaagtgtg ccaggtgcca caacacggcc
 300
 atcccgtctt cacagctcca ccccgctgc ctgctgcca ccatctccac aaacatatgc
 360
 tgcagctcca caccgggaa acaccacatg ctgcgttt
 398

<210> 2362

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2362

Met	Pro	Leu	Pro	Ser	Arg	Ser	Thr	Gln	Thr	Ser	Trp	Ser	Arg	Gly	Thr
1				5					10					15	
Ser	Ile	Pro	Ala	Leu	Ser	Ser	Arg	Ser	Cys	Arg	Glu	Ser	Pro	Lys	Gly
			20					25					30		
Arg	Trp	Trp	Gly	Trp	Gly	Leu	Gln	Gln	Leu	Gly	Pro	Leu	Ile	Ser	Leu
			35				40					45			
Lys	Ala	Gln	Gln	His	Thr	Val	Ser	Gln	Val	Cys	Gln	Val	Pro	Gln	His
			50			55				60					
Gly	His	Pro	Ala	Leu	Thr	Ala	Pro	Pro	Arg	Leu	Pro	Ala	Cys	His	His
65					70				75					80	
Leu	His	Lys	His	Met	Leu	Gln	Leu	His	Thr	Arg	Glu	Thr	Pro	His	Ala
				85				90						95	

Arg Phe

<210> 2363

<211> 833

<212> DNA

<213> Homo sapiens

<400> 2363

nngactcttc tagctcccaa cgcaaaagcg tttaaagatg cagctcagaa gcatcaccag
 60
 cagcacaagg ggagggtccca agaaccagaa cttacatcac tgccctccgag ttcagagggt
 120
 tcctttccca cctttctcaga actttctgtt tccatggcct cctctgccac ctctgccacc
 180
 tcccctgatg tgctggcctc cgtttccatc gcttcctcat ggcggttcttc cgcccgggtgt
 240
 tccaagccca ctgcangtcg aagcaaactg gattgcgtta ccactcagaa ggtggcacag
 300
 ggactggcag cgggtgccatc tgggagtcgt tgtgctcage ctccgagtgc aggtttcccc
 360

ggccccctgct gtggtgctag gtccccagat gagagatcac ggtcatgaag atcagcccc
 420
 aaggcagccc cttccttcc agcctgggct ctggcgtgtt ctaggtgctc acttccatgg
 480
 ctggcctgct cacagagccc tacctcagcc tgtggtaage gcacctgctc ggccctgggtg
 540
 ctctatgatg agccaccagt cagttctgca gatgtgtccc cgagctcctg ccgagggacg
 600
 aaacacgggtg gccctgctcc tagtgctgt gcacgccacg ctccacacct gccatctgcc
 660
 cttccaccac ctgctcccc aggggctccg cctcgtgact cacgctcagg caagtctccg
 720
 ggcgcgaaca gctggctgat ggtgacatgc tgcagcctgg tcacatcaga aaccatgagg
 780
 gtggatctcc ggaggtcatc gatgtggaca gactgccaca gcccttcacg cgt
 833

<210> 2364
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 2364
 Xaa Thr Pro Leu Ala Pro Asn Ala Lys Ala Phe Lys Asp Ala Ala Gln
 1 5 10 15
 Lys His His Gln Gln His Lys Gly Arg Ser Gln Glu Pro Glu Leu Thr
 20 25 30
 Ser Leu Pro Pro Ser Ser Glu Val Ser Phe Pro Thr Phe Ser Glu Leu
 35 40 45
 Ser Val Ser Met Ala Ser Ser Ala Thr Ser Ala Thr Ser Pro Asp Val
 50 55 60
 Leu Ala Ser Val Ser Ile Ala Ser Ser Trp Arg Ser Ser Ala Arg Cys
 65 70 75 80
 Ser Lys Pro Thr Ala Xaa Arg Ser Lys Arg Asp Cys Val Thr Thr Gln
 85 90 95
 Lys Val Ala Gln Gly Leu Ala Ala Val Pro Ser Gly Ser Leu Cys Ala
 100 105 110
 Gln Pro Pro Ser Ala Gly Phe Pro Gly Pro Cys Cys Gly Ala Arg Ser
 115 120 125
 Pro Asp Glu Arg Ser Arg Ser
 130 135

<210> 2365
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 2365
 accggtgccc agctcccacg gctcgtccag acctacgttg agaaacttcg acgagacagt
 60
 ctccgtcagt tcgcccaca acctctgaac gaagtcaaga ttctccggca ctggagccaa
 120
 ggtgcttgcc ctggcatgaa cgccccaggg gaggtcgacg ccgtcgggat tctcacaccg
 180

atggtgatgg gactcgggtt ccaaccacgg ttccatgtga cccagacagt tctggttggc
 240
 cccgagctcg atgcctcgtc cgcgacacag accatcgagc cacctcatgt cctccgccgt
 300
 cacggggctg cggtcggccc acacctctc ctcaccgagg taggcaaata ccgcttcacc
 360
 atagagctca aggtgattga gaccacaccg cgccatgacg cgcgtcagga aatcaagagt
 420
 ggaacgcgt
 429

<210> 2366

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2366

Met	Ala	Arg	Cys	Gly	Leu	Asn	His	Leu	Glu	Leu	Tyr	Gly	Glu	Ala	Gly
1				5					10					15	
Phe	Ala	Tyr	Arg	Gly	Glu	Glu	Glu	Val	Trp	Ala	Asp	Arg	Ser	Pro	Val
			20					25					30		
Thr	Ala	Glu	Asp	Met	Arg	Trp	Leu	Asp	Gly	Leu	Cys	Arg	Gly	Arg	Gly
		35					40					45			
Ile	Glu	Leu	Gly	Ala	Asn	Gln	Asn	Cys	Leu	Gly	His	Met	Glu	Pro	Trp
	50					55					60				
Leu	Glu	Thr	Glu	Ser	His	His	His	Arg	Cys	Glu	Asn	Pro	Asp	Gly	Val
65					70					75				80	
Asp	Leu	Pro	Trp	Gly	Val	His	Ala	Arg	Ala	Ser	Thr	Leu	Ala	Pro	Val
				85					90					95	
Pro	Glu	Asn	Leu	Asp	Phe	Val	Gln	Arg	Leu	Leu	Gly	Glu	Leu	Thr	Glu
			100					105					110		
Thr	Val	Ser	Ser	Lys	Phe	Leu	Asn	Val	Gly	Leu	Asp	Glu	Pro	Trp	Glu
		115					120					125			
Leu	Gly	Thr	Gly												
			130												

<210> 2367

<211> 474

<212> DNA

<213> Homo sapiens

<400> 2367

ngtgcacggg agaagacgtg cgcgcagttc ggcggaacct atccgggttc ggccggcagt
 60
 ggggggtcacg agctcaccga cgcgcgcgcg ttgcctcgtt ggggcgtcga tttcgtcaaa
 120
 tacgatcggg gctccggtga ctccgcgcac gacgaccagg tcgcctcgtt caccgcgatg
 180
 cgtgacgcaa tccgatccac cggacgcccc atggtgtaca gcatcaacct caacagcgaa
 240
 tcgcccggatc ggtccggagc ccaattcgat tggggcggtg tggcaacct gacacgtacc
 300
 accaacgaca tctcgccggt gtggaccact cggccggcgg gtgccgatgc gacaccggca
 360

tcgggggtatc aggggatccg cgacatcatc gacgccgtgg ccccgatcgg cgcacggggt
 420
 gcgacggcag cttcgtcgac atggacatgc tcgtcgtcgg tgcgggcaac gcgt
 474

<210> 2368
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 2368
 Xaa Ala Arg Glu Lys Thr Cys Ala Gln Phe Gly Gly Thr Tyr Pro Gly
 1 5 10 15
 Ser Ala Gly Ser Gly Gly His Glu Leu Thr Asp Ala Arg Ala Phe Ala
 20 25 30
 Ser Trp Gly Val Asp Phe Val Lys Tyr Asp Arg Cys Ser Gly Asp Ser
 35 40 45
 Ala His Asp Asp Gln Val Ala Ser Phe Thr Ala Met Arg Asp Ala Ile
 50 55 60
 Arg Ser Thr Gly Arg Pro Met Val Tyr Ser Ile Asn Pro Asn Ser Glu
 65 70 75 80
 Ser Pro Asp Arg Ser Gly Ala Gln Phe Asp Trp Gly Gly Val Ala Thr
 85 90 95
 Met Thr Arg Thr Thr Asn Asp Ile Ser Pro Val Trp Thr Thr Arg Pro
 100 105 110
 Ala Gly Ala Asp Ala Thr Pro Ala Ser Gly Tyr Gln Gly Ile Arg Asp
 115 120 125
 Ile Ile Asp Ala Val Ala Pro Ile Gly Ala Arg Val Ala Thr Ala Ala
 130 135 140
 Ser Ser Thr Trp Thr Cys Ser Ser Ser Val Ser Ala Thr Arg
 145 150 155

<210> 2369
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 2369
 ctgaatggca ggcaggcaga ggccaccaga gccagccccc cgagaagccc tgctgagcca
 60
 aaggggagcg ccctgggacc taacccagag ccccatctca ccttcccccg ttctttcaaa
 120
 gtgcctcccc caacccagc caggacttcg tccatcccag ttcaggaagc acaagaggct
 180
 cccgaaagga agagggggcc accaagaagg ctcccagccg actcccactg cctcccagct
 240
 tccacatccg ccccgctcc caggtctacc cagacagggc ccccgagcnc agactgcct
 300
 ggggagctca agccacagc accagccagc ccaaggcttg gccagtcca gtccaagca
 360
 gatgaacgag ctgggactcc gcctccagcc cctccccctgc cccctcct
 408

<210> 2370

<211> 136
 <212> PRT
 <213> Homo sapiens

<400> 2370
 Leu Asn Gly Arg Gln Ala Glu Ala Thr Arg Ala Ser Pro Pro Arg Ser
 1 5 10 15
 Pro Ala Glu Pro Lys Gly Ser Ala Leu Gly Pro Asn Pro Glu Pro His
 20 25 30
 Leu Thr Phe Pro Arg Ser Phe Lys Val Pro Pro Pro Thr Pro Val Arg
 35 40 45
 Thr Ser Ser Ile Pro Val Gln Glu Ala Gln Glu Ala Pro Glu Arg Lys
 50 55 60
 Arg Gly Pro Pro Arg Arg Leu Pro Ala Asp Ser His Cys Leu Pro Ala
 65 70 75 80
 Ser Thr Ser Ala Pro Pro Pro Arg Ser Thr Gln Thr Gly Pro Pro Ser
 85 90 95
 Xaa Asp Cys Pro Gly Glu Leu Lys Ala Thr Ala Pro Ala Ser Pro Arg
 100 105 110
 Leu Gly Gln Ser Gln Ser Gln Ala Asp Glu Arg Ala Gly Thr Pro Pro
 115 120 125
 Pro Ala Pro Pro Leu Pro Pro Pro
 130 135

<210> 2371
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 2371
 gaattcgggtg tgcgatgcga gcctgcagcc tgggagcaga gacaaggagc aaaggcgggtg
 60
 agaggggttgc cagggcaccc agttacagct ggagctgcag gggacccatc cctcgagaga
 120
 ggcaggcact agtcatgagg caagagatgc ctcagaagag gatgctggcc gcagggcaca
 180
 gcagagaggg agatagcccg gggcactcct caggaccggg cctcagggga cagcaaacaa
 240
 gattcctgat agacgcgccc aggtcatgcc ttttcagtgg tgtgagccag gttctggcgt
 300
 caggcggggcc aaggttttca tgcagcn
 327

<210> 2372
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 2372
 Met Arg Ala Cys Ser Leu Gly Ala Glu Thr Arg Ser Lys Gly Gly Glu
 1 5 10 15
 Arg Val Ala Arg Ala Pro Ser Tyr Ser Trp Ser Cys Arg Gly Pro Ile
 20 25 30
 Pro Arg Glu Arg Gln Ala Leu Val Met Arg Gln Glu Met Pro Gln Lys

```

          35              40              45
Arg Met Leu Ala Ala Gly His Ser Arg Glu Gly Asp Ser Pro Gly His
   50              55              60
Ser Ser Gly Pro Gly Leu Arg Gly Gln Gln Thr Arg Phe Leu Ile Asp
   65              70              75              80
Ala Pro Arg Ser Cys Leu Phe Ser Gly Val Ser Gln Val Leu Ala Ser
          85              90              95
Gly Gly Pro Arg Phe Ser Cys Ser
          100

```

<210> 2373
 <211> 591
 <212> DNA
 <213> Homo sapiens

```

<400> 2373
gaattctgac attcaggaag tcaattgcag aaggtttaac caagttgatt ctgttttacc
60
aaatcctgtc tattctgaaa agcggccaat gccagactca tctcatgatg tgaaagttct
120
cacttcaaag acatcagctg ttgagatgac ccaggcagta ttgaatactc agctttcatc
180
agaaaatggt accaaagttg agcaaaattc accagcagtt tgtgaaacaa tttctgttcc
240
caagtccatg tccactgagg aatataaatc aaaaattcaa aatgaaaata tgctacttct
300
cgctttgctt tcacaggcac gtaagactca gaagacagta ttaaagatg ctaatcaaac
360
tattcaggat tctaaaccag acagttgtga aatgaatcca aatacccaaa tgactggtaa
420
ccaactgaat ttgaagaaca tggaaactcc aagtacttct aatgtaagtg gcagggtttt
480
ggacaactcc ttttgcagtg gacaagaatc ctcaacaaaa ggaatgcctg ctaaaagtga
540
cagtagctgt tccatggaag tgctagcaac ctgtctttcc ctgtggaaaa a
591

```

<210> 2374
 <211> 167
 <212> PRT
 <213> Homo sapiens

```

<400> 2374
Met Pro Asp Ser Ser His Asp Val Lys Val Leu Thr Ser Lys Thr Ser
  1              5              10              15
Ala Val Glu Met Thr Gln Ala Val Leu Asn Thr Gln Leu Ser Ser Glu
   20              25              30
Asn Val Thr Lys Val Glu Gln Asn Ser Pro Ala Val Cys Glu Thr Ile
   35              40              45
Ser Val Pro Lys Ser Met Ser Thr Glu Glu Tyr Lys Ser Lys Ile Gln
   50              55              60
Asn Glu Asn Met Leu Leu Ala Leu Leu Ser Gln Ala Arg Lys Thr
   65              70              75              80
Gln Lys Thr Val Leu Lys Asp Ala Asn Gln Thr Ile Gln Asp Ser Lys

```


85								90				95				
Ser	His	Leu	Phe	Arg	Gly	Ala	Thr	Ser	Gly	Thr	Ile	Met	Arg	Asn	Asp	
100				105				110								
Ala	Tyr	Arg	Phe	Ile	Arg	Leu	Gly	Thr	Phe	Val	Glu	Arg	Ala	Asp	Asn	
115				120				125								
Thr	Leu	Arg	Leu	Leu	Asp	Ala	Arg	Tyr	Glu	Met	Phe	Gly	Glu	Glu	Ser	
130				135				140								
Glu	Glu	Val	Ser	Asp	Leu	Ser	Ala	Arg	Gly	Tyr	Tyr	Gln	Trp	Ser	Ala	
145				150				155				160				
Leu	Leu	Arg	Ala	Leu	Ser	Ser	Phe	Glu	Ala	Tyr	Thr	Glu	Leu	Tyr	Pro	
165				170				175								
Asn		Ala														

<210> 2377

<211> 622

<212> DNA

<213> Homo sapiens

<400> 2377

acgcgtgaag ggttgaggct tcagaagtgg tagggaagaa cagaagctcc cttctgaggg
60

agcaccacagg agatgaaagg aaccaatcct ggggtggcct gcaccaggct tatcaacccc
120

tgacagacaa atggaaaact tctgtgatgg tgggacatga aaaaatatatt cacccttctg
180

ataaaaatgga accagcagat agaagtagga atttttctgt taggtgaaat gtttttaaaa
240

atatgtatac aggaaaaagc ataaaacagt attgactggc aaacatagaa ctggaatgta
300

aatataatgt tctttgcctt gaatgattta agtggcatga taaaactcat gccacagact
360

gggtaagaca aggaatctaa tccactctaa aaagaagaaa agcatagtaa aattctcctt
420

agagttagaa ttattaatag ttcttatcta ctatttaatt taatcatagt taatgatgag
480

aatttcttaa atttaaagct tctgatgatg ctaaagtgtc atttctcatg attccttaaa
540

acaatttttg taaattctat tcttaggacc ttctgctttc agaaaaatta atgtcttgta
600

ttcttcgtat tggaggagat ct
622

<210> 2378

<211> 109

<212> PRT

<213> Homo sapiens

<400> 2378

Met Ser Phe Ile Met Pro Leu Lys Ser Phe Arg Ala Lys Asn Ile Ile
1 5 10 15

Phe Thr Phe Gln Phe Tyr Val Cys Gln Ser Ile Leu Phe Tyr Ala Phe
20 25 30

Ser Cys Ile His Ile Phe Lys Asn Ile Ser Pro Asn Arg Lys Ile Pro

```

          35          40          45
Thr Ser Ile Cys Trp Phe His Phe Ile Arg Arg Val Lys Tyr Phe Phe
    50          55          60
Met Ser His His His Arg Ser Phe Pro Phe Val Cys Gln Gly Leu Ile
65          70          75          80
Ser Leu Val Gln Asp His Pro Gly Leu Val Pro Phe Ile Ser Trp Val
          85          90          95
Leu Pro Gln Lys Gly Ala Ser Val Leu Pro Tyr His Phe
    100          105

```

<210> 2379
 <211> 342
 <212> DNA
 <213> Homo sapiens

```

<400> 2379
tcattgacctg gagacttcgg aaactcaaca agactgcagg gcacccaggg gcaccagccc
60
cggtcaccgc agaggatcag tgcactttgc catctggcag atcaactcat ggcacaactg
120
ggaaacataa cattcacgct tgtgaaccga gacgccatac cccagcgggtg ccgagagcaa
180
cagtgtgtgtg caggtctggg cagatgaggg cctccaggac acgaggactc actcgctcac
240
cctgcccact gggcagctgc tcgccactcc cctcctggag ggcaggacgg acaccacaca
300
cacacacaag caggggaagct gtgcagcagt ggggagaaag ca
342

```

<210> 2380
 <211> 113
 <212> PRT
 <213> Homo sapiens

```

<400> 2380
Met Thr Trp Arg Leu Arg Lys Leu Asn Lys Thr Ala Gly His Pro Gly
1          5          10          15
Ala Pro Ala Pro Val Thr Ala Glu Asp Gln Cys Thr Leu Pro Ser Gly
          20          25          30
Arg Ser Thr His Gly Thr Thr Gly Lys His Asn Ile His Ala Cys Glu
          35          40          45
Pro Arg Arg His Thr Pro Ala Val Pro Arg Ala Thr Val Leu Cys Arg
          50          55          60
Ser Gly Gln Met Arg Ala Ser Arg Thr Arg Gly Leu Thr Arg Ser Pro
65          70          75          80
Cys Pro Leu Gly Ser Cys Ser Pro Leu Pro Ser Trp Arg Ala Gly Arg
          85          90          95
Thr Pro His Thr His Thr Ser Arg Glu Ala Val Gln Gln Trp Gly Glu
          100          105          110
Ser

```

<210> 2381
 <211> 434

<212> DNA

<213> Homo sapiens

<400> 2381

gtgcaccctg gccatatgga cgccagcgac gtcggcgtct tgcgtgacgt ggaaccgatc
60
ggcccaagta gagagatgga ttttgaatgg tgacgatgta cccgccgcag caagtggatg
120
ccgtcctctt tgacatggac ggaaccctgc tcaacaccct gccggcctgg tgcgtggcat
180
ctgagcatct gtggggcact tctctggctg acgctgacag cgccaagggt gacgggggca
240
ccgtcgacga cgtcgttgag ctgtatctgc gagaccaccc tcaggcagat ccccaggcca
300
ccatcgagcg tttcatggac atccttgacg ccaacctggc tggccacacc gagccgatgc
360
ccggagctga ccgcctcgtg aagaggctgt cagggtcatgt acccatcgct gtggtgtcga
420
attccccgac gcgt
434

<210> 2382

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2382

Met	Val	Thr	Met	Tyr	Pro	Pro	Gln	Gln	Val	Asp	Ala	Val	Leu	Phe	Asp
1				5					10					15	
Met	Asp	Gly	Thr	Leu	Leu	Asn	Thr	Leu	Pro	Ala	Trp	Cys	Val	Ala	Ser
			20					25					30		
Glu	His	Leu	Trp	Gly	Thr	Ser	Leu	Ala	Asp	Ala	Asp	Ser	Ala	Lys	Val
		35				40					45				
Asp	Gly	Gly	Thr	Val	Asp	Asp	Val	Val	Glu	Leu	Tyr	Leu	Arg	Asp	His
	50					55					60				
Pro	Gln	Ala	Asp	Pro	Gln	Ala	Thr	Ile	Glu	Arg	Phe	Met	Asp	Ile	Leu
65					70				75					80	
Asp	Ala	Asn	Leu	Ala	Gly	His	Thr	Glu	Pro	Met	Pro	Gly	Ala	Asp	Arg
			85					90					95		
Leu	Val	Lys	Arg	Leu	Ser	Gly	His	Val	Pro	Ile	Ala	Val	Val	Ser	Asn
			100					105					110		
Ser	Pro	Thr	Arg												
			115												

<210> 2383

<211> 393

<212> DNA

<213> Homo sapiens

<400> 2383

acgcgtgcgt tcagatgagc gccggacgaa actcctcggc cgcttcggca ggcattggatt
60
catgtcggca cgggcctttg aacaggatcg ccgtcgcgtg gctatccgcc gcgggtgggg
120

cagaaaacgc ccactctccc ttccccaggc gccggccgtc gagtcgtcta cgcaacgcac
 180
 gtctacatag gtgacttttt cataccccca ctttcgtact cggatgggct cggcgtgctc
 240
 gatgtcggca cgaaaaatta aatgcactga atgcggggtg tcgcacagga tgcattctgt
 300
 ctttcttgat gccaccacc ttgttacata ttctgccatg caaaacacct tgtgattttt
 360
 ggcggagtgc aacatgggtat gtgtatgccca ctg
 393

<210> 2384

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2384

Met	Leu	His	Ser	Ala	Lys	Asn	His	Lys	Val	Phe	Cys	Met	Ala	Glu	Tyr
1				5					10					15	
Val	Thr	Arg	Trp	Val	Ala	Ser	Arg	Lys	Thr	Arg	Cys	Ile	Leu	Cys	Asp
			20					25					30		
Asn	Pro	His	Ser	Val	His	Leu	Ile	Phe	Arg	Ala	Asp	Ile	Glu	His	Ala
			35				40					45			
Glu	Pro	Ile	Arg	Val	Arg	Lys	Trp	Gly	Tyr	Glu	Lys	Val	Thr	Tyr	Val
	50					55				60					
Asp	Val	Arg	Cys	Val	Asp	Asp	Ser	Thr	Ala	Gly	Ala	Trp	Gly	Arg	Glu
65					70				75					80	
Ser	Gly	Arg	Phe	Leu	Pro	His	Pro	Arg	Arg	Ile	Ala	Thr	Arg	Arg	Arg
			85					90					95		
Ser	Cys	Ser	Lys	Ala	Arg	Ala	Asp	Met	Asn	Pro	Cys	Leu	Pro	Lys	Arg
			100					105					110		
Pro	Arg	Ser	Phe	Val	Arg	Arg	Ser	Ser	Glu	Arg	Thr	Arg			
			115				120					125			

<210> 2385

<211> 347

<212> DNA

<213> Homo sapiens

<400> 2385

acgcgttccc aaagtaggat ggctgggata gagggaaagg acatctttca ggcttggtat
 60
 gcactgtgct gtggactctt gttgtggggt cctaggtctg cccagcattt tggggttcac
 120
 cccgtgaccc tctacgggtt tccatgcccc cagcaccacg tccatcatca tttctgggggt
 180
 cccctcacct cagagagcct gcttcctatg actgcgtggg ccagctggag aaggacgacc
 240
 caagaccctt caagtttctg tgtcctgacc ccaagcatag gcctgagtgc tcctggggcc
 300
 caagggcctt tacgcactac tctctggggc cactgtctg cactctt
 347

<210> 2386

<211> 109
 <212> PRT
 <213> Homo sapiens

<400> 2386
 Met Ala Gly Ile Glu Gly Lys Asp Ile Phe Gln Ala Cys Tyr Ala Leu
 1 5 10 15
 Cys Cys Gly Leu Leu Leu Trp Gly Pro Arg Ser Ala Gln His Phe Gly
 20 25 30
 Val His Pro Val Thr Leu Tyr Gly Phe Pro Cys Pro Gln His His Val
 35 40 45
 His His His Phe Trp Gly Pro Leu Thr Ser Glu Ser Leu Leu Pro Met
 50 55 60
 Thr Ala Trp Ala Ser Trp Arg Arg Thr Thr Gln Asp Pro Ser Ser Phe
 65 70 75 80
 Cys Val Leu Thr Pro Ser Ile Gly Leu Ser Ala Pro Gly Ala Gln Gly
 85 90 95
 Pro Leu Arg Thr Thr Leu Trp Gly Pro Leu Ser Ala Leu
 100 105

<210> 2387
 <211> 715
 <212> DNA
 <213> Homo sapiens

<400> 2387
 ncggccgcac ttcaccttac ggaggggaga taatgagatc aattagaggc gccgtcaccg
 60
 cgccggagac agctgcccgc gcatagtaat caccgcgggg ctgggtgctgc gggggctccc
 120
 cgctacctgc gcgcctgctg ctcccaccac gcggcaccga cccggggcgcg cccccggccc
 180
 ctgtccgcag cccacagcca caccgcgcac cctacaccct ccttgcgctt ctgctgggga
 240
 gctcaccccc tccactcgca cagtgcgctg cgccccgggg tgtgggaggt cccgggactt
 300
 gggttgtgag tgccctgtgtg ggggtagggg caggtgtccg cttgtgcgca tatgggcatg
 360
 agtgtacatg gcgtgtgcct ggagatgggc gagtgcaggc tggaatgtgc cggcgtggca
 420
 cgtgtgtggg cccaaataga tgcgtgtgtg atcacatgtt gtgttcgtgt ttgcacctcg
 480
 tgtgcctgtg tgtccgtatt tgagtgtta caggaatgtg ggtgggtgagt acccgatatg
 540
 ggggtgcatct gcacttgtgc gtgtgtgtgt gtaggcgcgt gtgtgtgcgt gtgtgtgtta
 600
 ngggatacgt gtagatgtgc attagtgtga ctgtgtgtgc tcatgtgcct gtgcacgtgt
 660
 gtttgagggt tgtgtgcatg ggtagcgtct gtgagagcca tgtgtatatc tgcag
 715

<210> 2388
 <211> 58
 <212> PRT

<213> Homo sapiens

<400> 2388

```

Met Gly Met Ser Val His Gly Val Cys Leu Glu Met Gly Glu Cys Arg
 1           5           10           15
Leu Glu Cys Ala Gly Val Ala Arg Val Trp Ala Gln Ile Asp Ala Cys
          20          25          30
Val Ile Thr Cys Cys Val Arg Val Cys Thr Ser Cys Ala Cys Val Ser
          35          40          45
Val Phe Glu Cys Leu Gln Glu Cys Gly Trp
          50          55

```

<210> 2389

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2389

```

ntcacctgc cgccggaagg ttgctcgtac cgcattggcca tcgtcaccat gaagaagtcg
60
tatccgggcc acgccaagcg cgtcatgttg ggtgtctggt cgtttttgcg acagtccatg
120
tataccaagt tcgttatcgt caccgacgac gatatacaacg cccgcgactg gaacgacgtg
180
atctgggcca tcaccacgcg catggacccc aagcgcgaca cggtgatgat cgataaacag
240
ccgacgact acctcgactt cgctcgccg gtgtccggcc tgggttcgaa gatggggctc
300
gatccacgc acaaattggcc cggccacacc acccgn
336

```

<210> 2390

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2390

```

Xaa Thr Leu Pro Pro Glu Gly Cys Ser Tyr Arg Met Ala Ile Val Thr
 1           5           10           15
Met Lys Lys Ser Tyr Pro Gly His Ala Lys Arg Val Met Leu Gly Val
          20          25          30
Trp Ser Phe Leu Arg Gln Phe Met Tyr Thr Lys Phe Val Ile Val Thr
          35          40          45
Asp Asp Asp Ile Asn Ala Arg Asp Trp Asn Asp Val Ile Trp Ala Ile
          50          55          60
Thr Thr Arg Met Asp Pro Lys Arg Asp Thr Val Met Ile Asp Asn Thr
          65          70          75          80
Pro Ile Asp Tyr Leu Asp Phe Ala Ser Pro Val Ser Gly Leu Gly Ser
          85          90          95
Lys Met Gly Leu Asp Pro Thr His Lys Trp Pro Gly His Thr Thr Arg
          100          105          110

```

<210> 2391

<211> 388

<212> DNA

<213> Homo sapiens

<400> 2391

gtcgactaac ctgcgtacag ccgccaccct acgttttagtc gcgaagcgtg tcgggtccat
60
gttcattccg gagctacacc atgaataaag tactacctga tccacccatc gatcccgcaa
120
aagaccgctg cgctttcaac cgcgccatcg accattacct gcctaccag gggttccact
180
gcgtcaacga agacctgagt ttcgaagacg ccctgctcta caccgccagc ctgctcgaca
240
gtgcctctgc caggcgctg gattgcggtg agctgctgca aagccctgaa cgggcgaaga
300
tcctggccgt gtggcatttg ctggaaattg caaaaaccac cgtagatcgc ttccccatcg
360
agtgcctgac cgcaccaaaag ccctgcct
388

<210> 2392

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2392

Met	Asn	Lys	Val	Leu	Pro	Asp	Pro	Pro	Ile	Asp	Pro	Ala	Lys	Asp	Arg
1				5					10					15	
Val	Ala	Phe	Asn	Arg	Ala	Ile	Asp	His	Tyr	Leu	Pro	Thr	Gln	Gly	Phe
			20					25					30		
His	Cys	Val	Asn	Glu	Asp	Leu	Ser	Phe	Glu	Asp	Ala	Leu	Leu	Tyr	Thr
			35					40				45			
Ala	Ser	Leu	Leu	Asp	Ser	Ala	Ser	Ala	Thr	Ala	Leu	Asp	Cys	Gly	Glu
			50				55				60				
Leu	Leu	Gln	Ser	Pro	Glu	Arg	Ala	Lys	Ile	Leu	Ala	Val	Trp	His	Leu
					70					75				80	
Leu	Glu	Ile	Ala	Lys	Thr	Thr	Val	Asp	Arg	Phe	Pro	Ile	Glu	Cys	Leu
					85				90					95	
Thr	Ala	Pro	Lys	Pro	Cys										
					100										

<210> 2393

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2393

aacctgtcta ccgaggacca ggccgagcag gtagagattg tgaagcgctc tgagtccggc
60
atggtcaccg accccatcac tgccgcgccg gatatgacca tcggggaagt agacgcgctg
120
tgccgccgct tccgcattct cggcctgccg gtggtagacg aggacggcac cctgatgggc
180
atttgacca cccgcgatat gcgcttcgag cctgactttg accgcaaggt cagcgaggtc
240

atgacggcta tgccgcttgt tgttgcgcg cagggtgtat ctaagaagga agccctcgaa
 300
 ctgctctcgg ccaataaggt ggaaaagctg cccatcgctg atgcggataa taagctcacc
 360
 ggcttgatta ccgtcaagga ctttgtcaag accgagcagt accccaacgc g
 411

<210> 2394

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2394

Asn	Leu	Ser	Thr	Glu	Asp	Gln	Ala	Glu	Gln	Val	Glu	Ile	Val	Lys	Arg
1				5				10						15	
Ser	Glu	Ser	Gly	Met	Val	Thr	Asp	Pro	Ile	Thr	Ala	Arg	Pro	Asp	Met
			20					25					30		
Thr	Ile	Gly	Glu	Val	Asp	Ala	Leu	Cys	Ala	Arg	Phe	Arg	Ile	Ser	Gly
		35					40					45			
Leu	Pro	Val	Val	Asp	Glu	Asp	Gly	Thr	Leu	Met	Gly	Ile	Cys	Thr	Thr
	50					55					60				
Arg	Asp	Met	Arg	Phe	Glu	Pro	Asp	Phe	Asp	Arg	Lys	Val	Ser	Glu	Val
65					70				75					80	
Met	Thr	Ala	Met	Pro	Leu	Val	Val	Ala	Arg	Glu	Gly	Val	Ser	Lys	Lys
			85					90					95		
Glu	Ala	Leu	Glu	Leu	Leu	Ser	Ala	Asn	Lys	Val	Glu	Lys	Leu	Pro	Ile
		100					105					110			
Val	Asp	Ala	Asp	Asn	Lys	Leu	Thr	Gly	Leu	Ile	Thr	Val	Lys	Asp	Phe
	115					120					125				
Val	Lys	Thr	Glu	Gln	Tyr	Pro	Asn	Ala							
	130					135									

<210> 2395

<211> 362

<212> DNA

<213> Homo sapiens

<400> 2395

aagcttttcag aggagtttgc taaagtgtta aggatttgca tattttcaac tttagtcata
 60
 tctaagtgcc ccaataaaac agcgcgggcg attgggggct ggctttcatc aacaactaac
 120
 ttagcaatat taatctgacc ttttcttggt gattgggcat ttagtaataa tgcggggcca
 180
 atatcatcat actttccaaa tatttttgat tttttagaca tcaactgaag ttgtgaccat
 240
 ttactgtctt tgtcttgatg gcaatctaaa caaacatctc ttgtattaag ttgttcactt
 300
 acccaaggat taggcactct aaaggcatga tcgcgtcgat catcgactcc catgtaacgc
 360
 gt
 362

<210> 2396

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2396

```

Met Gly Val Asp Asp Arg Arg Asp His Ala Phe Arg Val Pro Asn Pro
 1           5           10           15
Trp Val Ser Glu Gln Leu Asn Thr Arg Asp Val Cys Leu Asp Cys His
          20          25          30
Gln Asp Lys Asp Ser Lys Trp Ser Gln Leu Gln Leu Met Ser Lys Lys
          35          40          45
Ser Lys Ile Phe Gly Lys Tyr Asp Asp Ile Gly Pro Ala Leu Leu Leu
          50          55          60
Asn Ala Gln Ser Pro Gly Lys Gly Gln Ile Asn Ile Ala Lys Leu Val
        65          70          75          80
Val Asp Glu Ser Gln Pro Pro Met Arg Arg Ala Val Leu Leu Gly His
          85          90          95
Leu Asp Met Thr Lys Val Glu Asn Met Gln Ile Leu Asn Thr Leu Ala
          100          105          110
Asn Ser Ser Glu Ser
          115

```

<210> 2397

<211> 449

<212> DNA

<213> Homo sapiens

<400> 2397

```

nacagcacac tccgcctcct ccgacgatca tagctttcac gtcggacatg atcccccgcc
60
tagtgtacta ctggtccttc tccgtccctc cctacgggga ccacacttcc tacaccatgg
120
aagggtacat caacaacact ctctccatct tcaaagtcgc agacttcaaa aacaaaagca
180
agggaaaccc gtactctgac ctgggtaacc ataccacatg caggtatcgt gatttccgat
240
accacactgg acacccccag gagtataaac acaacatcta ctattggcat gtgattgcag
300
ccaagctggc ttttatcatt gtcatggagc acgtcatcta ctctgtgaaa tttttcattt
360
catatgcaat tcccgatgta tcaaagcgca caaagagcaa gatccagaga gaaaaatacc
420
taacccaaaa gcttcttcat gagaatcac
449

```

<210> 2398

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2398

```

Cys Thr Thr Gly Pro Ser Pro Ser Leu Pro Thr Gly Thr Thr Leu Pro
 1           5           10           15
Thr Pro Trp Lys Gly Thr Ser Thr Thr Leu Ser Pro Ser Ser Lys Ser

```

```

                20                25                30
Gln Thr Ser Lys Thr Lys Ala Arg Glu Thr Arg Thr Leu Thr Trp Val
      35                40                45
Thr Ile Pro His Ala Gly Ile Val Ile Ser Asp Thr His Leu Asp Thr
      50                55                60
Pro Arg Ser Ile Asn Thr Thr Ser Thr Ile Gly Met
65                70                75

```

<210> 2399
 <211> 344
 <212> DNA
 <213> Homo sapiens

```

<400> 2399
acgcgcatg cttcacgaaa cgggtcacgc gcttcattac caagcagctg gcaaacacaa
60
cttgatatttc gagcggggttg cgcagtcga gatcatggag ttcgtggcct actgcttgca
120
gtttctgacg atcgagcgcc tggccatgtc aggggaactt tcgggtaaag aacaggaact
180
agtcaaaccc tttgctggtc cggccaggct tggaggggtt cgaaaaccta caacgccaca
240
aaacgggttcc agcactgggt ttataaacag cctaaaatcc cgacaagtaa agaactcgat
300
accgtatggc ttgagatgcg acacacgctc ggggtggatt ggctc
344

```

<210> 2400
 <211> 112
 <212> PRT
 <213> Homo sapiens

```

<400> 2400
Met Leu His Glu Thr Gly His Ala Leu His Tyr Gln Ala Ala Gly Lys
1                5                10                15
His Asn Leu Tyr Phe Glu Arg Val Ala Pro Val Glu Ile Met Glu Phe
      20                25                30
Val Ala Tyr Cys Leu Gln Phe Leu Thr Ile Glu Arg Leu Ala Met Ser
      35                40                45
Gly Glu Leu Ser Gly Lys Glu Gln Glu Leu Val Lys Pro Phe Ala Gly
      50                55                60
Pro Ala Arg Leu Gly Gly Val Arg Lys Pro Thr Thr Pro Gln Asn Gly
65                70                75                80
Ser Ser Thr Gly Phe Ile Asn Ser Leu Lys Ser Arg Gln Val Lys Asn
      85                90                95
Ser Ile Pro Tyr Gly Leu Arg Cys Asp Thr Arg Ser Gly Trp Ile Gly
      100                105                110

```

<210> 2401
 <211> 479
 <212> DNA
 <213> Homo sapiens

<400> 2401

nntaccgagg taaaactcga tagcctcggg gtcaccgacc agatgcgctc tgggcgctgc
 60
 tggatgtttg ccgcgctcaa cgtattccgc caccgcgcgg ccaaggagct caacatcgat
 120
 gactttgagt tttcctttac ctacctgcag tacttcgaca aactagagcg cgccaacttc
 180
 gcgctcaacc aactgctgga tctcaccgaa gacggcaccg actgggatga ccgcgacgtg
 240
 gctacttccc tcgagctcac aggcgacgac ggcggtgggt ggtcattttt caccaacctc
 300
 gtggacaagt acggcgagc cccggccgag gtcatgctg aggtgcactc gtccggccac
 360
 accgaccaga tgaatcgca tatcgccacc atcatccgcc gcgccgcgca ccgtgcgggtg
 420
 gaaggcgagg gggatcgcg gggcatcgtc aagcaagccc gccccgatat ccaacgcgt
 479

<210> 2402

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2402

Xaa	Thr	Glu	Val	Lys	Leu	Asp	Ser	Leu	Gly	Val	Thr	Asp	Gln	Met	Arg
1				5					10					15	
Ser	Gly	Arg	Cys	Trp	Met	Phe	Ala	Ala	Leu	Asn	Val	Phe	Arg	His	Arg
			20						25					30	
Ala	Ala	Lys	Glu	Leu	Asn	Ile	Asp	Asp	Phe	Glu	Phe	Ser	Phe	Thr	Tyr
		35					40					45			
Leu	Gln	Tyr	Phe	Asp	Lys	Leu	Glu	Arg	Ala	Asn	Phe	Ala	Leu	Asn	Gln
	50					55					60				
Leu	Leu	Asp	Leu	Thr	Glu	Asp	Gly	Thr	Asp	Trp	Asp	Asp	Arg	Asp	Val
65					70					75				80	
Ala	Thr	Ser	Leu	Glu	Leu	Thr	Gly	Asp	Asp	Gly	Gly	Trp	Trp	Ser	Phe
				85					90					95	
Phe	Thr	Asn	Leu	Val	Asp	Lys	Tyr	Gly	Ala	Val	Pro	Ala	Glu	Val	Met
			100						105				110		
Pro	Glu	Val	His	Ser	Ser	Gly	His	Thr	Asp	Gln	Met	Asn	Arg	Asp	Ile
		115					120					125			
Ala	Thr	Ile	Ile	Arg	Arg	Ala	Ala	His	Arg	Ala	Val	Glu	Gly	Glu	Gly
	130					135					140				
Asp	Arg	Gly	Gly	Ile	Val	Lys	Gln	Ala	Arg	Pro	Asp	Ile	Gln	Arg	
145					150					155					

<210> 2403

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2403

ntcataaacg gcgataaccc gctggactcg tctgcgggttc acccggaagc ctaccgctg
 60
 gtgcagcgta ttgccgccga gaccggccgt gatatccgtt cgctgatcgg tgacgccgcg
 120

ttcctcaagc gcttgaccc gaagaagtac accgacgaaa ccttcggtgt gccgaccatc
 180
 accgacatcc tgcaagagct ggaaaaacct ggccgcgacc cgcgtcccga gttcaagacc
 240
 gccgagttcc aggacggtgt tgaagacctc aaggacctgc agccgggcat gatcctcgaa
 300
 ggcttggtca ccaacgtgac caactttggc gcctttgtgg atatcggcgt gcatcaggac
 360
 ggtttggtgc acatctctgc actttcg
 387

<210> 2404
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 2404
 Xaa Met Asn Gly Asp Asn Pro Leu Asp Ser Ser Ala Val His Pro Glu
 1 5 10 15
 Ala Tyr Pro Leu Val Gln Arg Ile Ala Ala Glu Thr Gly Arg Asp Ile
 20 25 30
 Arg Ser Leu Ile Gly Asp Ala Ala Phe Leu Lys Arg Leu Asp Pro Lys
 35 40 45
 Lys Tyr Thr Asp Glu Thr Phe Gly Val Pro Thr Ile Thr Asp Ile Leu
 50 55 60
 Gln Glu Leu Glu Lys Pro Gly Arg Asp Pro Arg Pro Glu Phe Lys Thr
 65 70 75 80
 Ala Glu Phe Gln Asp Gly Val Glu Asp Leu Lys Asp Leu Gln Pro Gly
 85 90 95
 Met Ile Leu Glu Gly Val Val Thr Asn Val Thr Asn Phe Gly Ala Phe
 100 105 110
 Val Asp Ile Gly Val His Gln Asp Gly Leu Val His Ile Ser Ala Leu
 115 120 125
 Ser

<210> 2405
 <211> 859
 <212> DNA
 <213> Homo sapiens

<400> 2405
 ttgcaagtaa catcaaaagt catctacaga agcaaaagac aaaaaggccc ctccacctgc
 60
 aaattaaatg gaataatttg ctttatgaga agctcaccat tggggtcatt cttatttttt
 120
 ctactccac atttcaactac aaaccaagga aagctccctc atggaccgac atctggtgag
 180
 cttcatctc tcccctggca atgcctggcc acctgacacc tggcctccct cctctttcca
 240
 gcaatcctgg taccaacgaa tggetcacca ccaccaccc caatgcccag accgcagacc
 300
 tgcattcctc ccatctcaca gcccacaaac caaacgcta ttcattctac ctcccatcct
 360

actcctcacg aatttcttcc accgtagact ctggttaatt ggactgactg aagcccaggg
 420
 gtcagtttct gtcctaagag cgctccaggt ggctgcaccc tgtgccaga gccaggcccc
 480
 ctgctatagg ctgctgcac tccccctgca ggtgctgggg acaccgcaac cctcctctg
 540
 gggacaccta cttgcctttg caggccctcg ggggtcactt ctcccaggaa gccgcctctg
 600
 ggtgaggtaa tatccctcta tcacagcatt ggccacacca cattgcaaac gctgctgggg
 660
 tccactgtct tcaccaatta caccatgagc tccacagact ccaggaccat ggcttctacc
 720
 tctcagttcc cagtgttagc tatggggccc agcacacagg gaacagcagt tcaattacc
 780
 agttcactga agggcagacc tgggatcata caggagcaa ggaagcttga gcccttcag
 840
 gagaagggga agaacgctg
 859

<210> 2406

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2406

Met	Asp	Arg	His	Leu	Val	Ser	Leu	His	Leu	Ser	Pro	Gly	Asn	Ala	Trp
1				5					10					15	
Pro	Pro	Asp	Thr	Trp	Pro	Pro	Ser	Ser	Phe	Gln	Gln	Ser	Trp	Tyr	Gln
			20					25					30		
Arg	Met	Ala	His	His	His	Pro	Pro	Gln	Cys	Pro	Asp	Arg	Arg	Pro	Ala
		35					40					45			
Phe	Leu	Pro	Ser	His	Ser	Pro	Lys	Ser	Lys	Pro	Leu	Phe	Ile	Leu	Pro
	50					55					60				
Pro	Ile	Leu	Leu	Leu	Thr	Asn	Phe	Phe	His	Arg	Arg	Leu	Trp	Leu	Ile
65					70					75				80	
Gly	Leu	Thr	Glu	Ala	Gln	Gly	Ser	Val	Ser	Val	Leu	Arg	Ala	Leu	Gln
			85					90					95		
Val	Ala	Ala	Pro	Cys	Ala	Gln	Ser	Gln	Ala	Pro	Cys	Tyr	Arg	Leu	Ala
			100					105					110		
Ala	Leu	Pro	Leu	Gln	Val	Leu	Gly	Thr	Pro	Gln	Pro	Ser	Ser	Trp	Gly
		115					120					125			
His	Leu	Leu	Ala	Phe	Ala	Gly	Pro	Arg	Gly	Ser	Leu	Leu	Pro	Gly	Ser
	130					135					140				
Arg	Leu	Trp	Val	Arg											
145															

<210> 2407

<211> 303

<212> DNA

<213> Homo sapiens

<400> 2407

nacgcgtggg ttatcttcag catggtgatc gcgattgggt tagccgttat ggctgcggtc
 60

gtattcatcg agcaaggcca gcgacgtatc ccggtgcagt acgccaagcg gatggtgggg
 120
 cgccgaatgt ttggtggctc gacgacgtac attccgctca aggtaaacca atctggcggt
 180
 atccccgtca tctttgcctc gtogatcctg taccttccgg tgctctacgc aactttccgg
 240
 ccgcagacgt ccgcggcaaa gtggatcggt cactacttca cgcgcggtga ccatccggtg
 300
 tac
 303

<210> 2408

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2408

Xaa	Ala	Trp	Phe	Ile	Phe	Ser	Met	Val	Ile	Ala	Ile	Gly	Leu	Ala	Val
1				5					10					15	
Met	Ala	Ala	Val	Val	Phe	Ile	Glu	Gln	Gly	Gln	Arg	Arg	Ile	Pro	Val
			20					25					30		
Gln	Tyr	Ala	Lys	Arg	Met	Val	Gly	Arg	Arg	Met	Phe	Gly	Gly	Ser	Thr
			35				40					45			
Thr	Tyr	Ile	Pro	Leu	Lys	Val	Asn	Gln	Ser	Gly	Val	Ile	Pro	Val	Ile
			50			55					60				
Phe	Ala	Ser	Ser	Ile	Leu	Tyr	Leu	Pro	Val	Leu	Tyr	Ala	Thr	Phe	Arg
65				70						75				80	
Pro	Gln	Thr	Ser	Ala	Ala	Lys	Trp	Ile	Gly	His	Tyr	Phe	Thr	Arg	Gly
				85					90					95	
Asp	His	Pro	Val	Tyr											
			100												

<210> 2409

<211> 322

<212> DNA

<213> Homo sapiens

<400> 2409

ccatggtttc aagcccccat tgtgtcagcc cagagagcaa ctggagaccc tctgacacca
 60
 cctcccggcc caacaggagg ggaagccgaa attcagattg tggaaactgc ctacaatttt
 120
 cttccggcca aatgaccctc cctaggctac caagaccctg gcctaagggg agccgaggtc
 180
 tcggcccgcac tgcagacgcc cgcaccctga ctccagatgc ctccgaggca tccagggtggg
 240
 ccctgagggg cctgctgtgg ctttgttctt gttggctggg ctgggggtct gacctggtga
 300
 gggacatgag tgtcagtgtg gg
 322

<210> 2410

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2410

```

Met Val Ser Ser Pro His Cys Val Ser Pro Glu Ser Asn Trp Arg Pro
 1             5             10             15
Ser Asp Thr Thr Ser Arg Pro Asn Arg Arg Gly Ser Arg Asn Ser Asp
          20             25             30
Cys Gly Asn Cys Leu Gln Phe Ser Ser Gly Gln Met Thr Leu Pro Arg
          35             40             45
Leu Pro Arg Pro Trp Pro Lys Gly Ser Arg Gly Leu Gly Pro Thr Ala
          50             55             60
Asp Ala Arg Thr Leu Thr Pro Asp Ala Ser Glu Ala Ser Arg Trp Ala
65             70             75             80
Leu Arg Gly Leu Leu Trp Leu Cys Ser Cys Trp Leu Gly Trp Gly Ser
          85             90             95
Asp Leu Val Arg Asp Met Ser Val Ser Val
          100             105

```

<210> 2411

<211> 371

<212> DNA

<213> Homo sapiens

<400> 2411

```

ccatgggctg ggtgctggag acacgagatc aggcaggccc tgcccctggg gctcattcta
60
gggtctgcgg cagacagggg gacagagggg gctgtgagag ccctgaggct gaggggcttt
120
ctggggaagc accatcccta gggacctccg cggtcggtca gtggccgctg ctgtcggtgt
180
gcagagcaga ggctggggcg agagtgggtc gcaggcctgc tgggtggcagc ttgtgcagga
240
agggaggatg gaggttggtt tgtggctggc aagaggggtg catgcacgtc gctgaaaggc
300
aggcctgggc ccgaggcctg ggtgtgggga cgcctgagga gactgtacag tgtggagtcg
360
ggggggctgc g
371

```

<210> 2412

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2412

```

Met Gly Trp Val Leu Glu Thr Arg Asp Gln Ala Gly Pro Ala Pro Gly
 1             5             10             15
Ala His Ser Arg Val Cys Gly Arg Gln Gly Asp Arg Gly Ser Cys Glu
          20             25             30
Ser Pro Glu Ala Glu Trp Leu Ser Gly Glu Ala Pro Ser Leu Gly Thr
          35             40             45
Ser Ala Phe Gly Gln Trp Pro Leu Leu Ser Val Cys Arg Ala Glu Ala
          50             55             60
Gly Ala Arg Val Val Ser Arg Pro Ala Gly Gly Ser Leu Cys Arg Lys

```

```

65              70              75              80
Gly Gly Trp Arg Leu Ala Cys Gly Trp Gln Glu Gly Gly Met His Val
              85              90              95
Ala Glu Arg Gln Ala Trp Ala Arg Gly Leu Gly Val Gly Thr Pro Glu
              100              105              110
Glu Thr Val Gln Cys Gly Val Gly Gly Ala Ala
              115              120

```

<210> 2413
 <211> 784
 <212> DNA
 <213> Homo sapiens

```

<400> 2413
ccgggagag ttgggcgggg caggggtgtt catggcatac tcgggattgt gtcatttggt
60
gtggctggat ttaggggtgca ttttaaaggca gtgaggctgg agaagtattc taggtctgct
120
taggtcact gaggaattgg ggttcttctt gaagagcatg gagcccttgg aggacctcca
180
cagcaggcag agagacggca gcctcctggg atctgattgc ccagccccac ttacacaggt
240
ggctgaggtg agctcttccc atggagtgca tccttctga tcagcctgag gagagcaggg
300
ccccaccatc ctgcacctgg tgcagaaaaa cctgtgaag ctgcactaca gaaagacacc
360
accaggtggc aggcttgag attgcatgga ggcccgcgcc cccccaacca attctttgat
420
aatagcacag tggtgaagag agggggccat aaaagactga atccctgttc atgccaggct
480
ggctctgccc aacatatatg agactgcaag ttctgccact gtgggctgtg taccacaag
540
ccacaggtcc ctctgaacct gtgaatcagg tcttgggagc tattcgagca ggctggattt
600
tctctctgc ctcgggggac ctgagagtaa gttacagact tcatgaccct tcaccccaaa
660
acattgagt atgtatcacc taagaacaag ggcattctcc tgtagaacca caatgcaatt
720
tgcaagttca ggaaatttaa ctgatacaat actattatct aattacggag agaagacaac
780
gcgt
784

```

<210> 2414
 <211> 137
 <212> PRT
 <213> Homo sapiens

```

<400> 2414
Met Lys Ser Val Thr Tyr Ser Gln Val Pro Arg Gly Arg Gly Glu Asn
1              5              10              15
Pro Ala Cys Ser Asn Ser Ser Gln Asp Leu Ile His Arg Phe Arg Gly
20              25              30
Thr Cys Gly Leu Trp Val His Ser Pro Gln Trp Gln Asn Leu Gln Ser

```

	35		40		45												
His	Ile	Cys	Trp	Ala	Glu	Pro	Ala	Trp	His	Glu	Gln	Gly	Phe	Ser	Leu		
	50					55				60							
Leu	Trp	Pro	Pro	Leu	Phe	Asn	Thr	Val	Leu	Leu	Ser	Lys	Asn	Trp	Leu		
65					70				75					80			
Gly	Gly	Ala	Gly	Pro	Pro	Cys	Asn	Leu	Gln	Ala	Cys	His	Leu	Val	Val		
				85				90					95				
Ser	Phe	Cys	Ser	Ala	Ala	Ser	Gln	Gly	Phe	Ser	Ala	Pro	Gly	Ala	Gly		
			100				105					110					
Trp	Trp	Gly	Pro	Ala	Leu	Leu	Arg	Leu	Ile	Arg	Lys	Asp	Ala	Leu	His		
	115					120					125						
Gly	Lys	Ser	Ser	Pro	Gln	Pro	Pro	Val									
	130					135											

<210> 2415

<211> 2164

<212> DNA

<213> Homo sapiens

<400> 2415

```

ctcgtgccag cgtcctcgcg ggtctgaatg gaagggtcga ggtcgtcgtc ggcggcgagc
60
agatcctgaa gccagaactc caccocggcg cccgcgccat gcggcgggag aggtgcgggc
120
ccccccaccc gcgtcgccgc catggagggtg ctgcggcgct ctcggtctt cgctgcgggag
180
atcatggacg cctttgatcg ctggcccaca gacaaggagc tgggtggcca ggctaaagca
240
ctaggccggg agtacgtgca cgcgcggctt ttgcgcgccg gcctctcctg gagcgctcca
300
gagcgtgcct cgcctgcccc tggaggacgc ctggctgagg tgtgcgcggt gctgctgcgc
360
ctgggcgatg agctggagat gatccggccc agcgtctacc gcaacgtggc gcgtcagctg
420
cacatctccc tgcagtctga gcctgtggtg accgatgcgt tcctggccgt ggctggccac
480
atcttctctg caggcatcac gtggggcaag gtgggtgtccc tgtatgcggt ggccgcgggg
540
ctggccgtgg actgtgtgag gcaggcccag cctgccatgg tccacgccct cgtggactgc
600
ctgggggagt tcgtgcgcaa gaccctggca acctggctgc ggagacgcgg cggatggact
660
gatgtcctca agtgtgtggt cagcacagac cctggcctcc gctccactg gctggtggct
720
gcaactctga gcttcggccg ctctctgaag gctgccttct tcgtgctgct gccagagaga
780
tgagctgccc acctggcagt ggccgcagcc tggccctctg ggcccaacgc aggaggccct
840
cagcaccga acacatcttc ctctcccca cccgagcctg gagcactcta acctcggaga
900
ccccctaagc cccgttctc cgagaccca ggccctccgg aagggtagt ggggaggggc
960
tttctgagc ctggagctgg gctttggggc agcctgcgac cctccccgct tgtgtccctt
1020

```

ctctgtgat ctctgtgttt tcccttttct ttctggggcc aggaagtcag ggtcaactcc
 1080
 caggcctcag gtgaaggggc ccagaacacc tgctctcacc tgagccccag gtgaaggggc
 1140
 ccgggaacac ctgctctcac ctgagcccca ggtgaagggg cccgggaaca cctgctctca
 1200
 cctgagcccc tggggaaggg gcccggaaca cctgctctca cctgagcccc aggtgaaggg
 1260
 gcccggaaca cctgctctca cctgagcccc aggtgaaggg gcccggaaca cttgctctca
 1320
 cctgagcccc aggtgaaggg gcccggaac acctctcacc tgaacccggg ggtcccatcc
 1380
 caggaagaag ggccatctca ggacatgagt cctcaggggc cctgcacatt caatctgaag
 1440
 gtgaccctgg cctggctgaa gctggaagag ctgtggggac tcagcctgta aacagagcgt
 1500
 aagggttcaca tgctggttgc ttaatccgtt tctggaggaa gagtatgaca ccacttgtg
 1560
 atgggggtcct tgtgcggtgg ggaccggggc cggcgggctc caggccagca cacctaacc
 1620
 atggatgtgg aacctacggc cgagaaggaa tgttgcattga gtcggatccc agtccattgt
 1680
 cagtggaggg tgaggggtgac cccatctgct atttttgtgc tcacctcat acaaccattt
 1740
 ggggatgtgc ctattagggc tccgtaagaa ctcatatgcc tgggaagccc agccccctcag
 1800
 gtgccccac acacagcctt cccttgacgc ctacatttct aggcacatgt gaggcattct
 1860
 tcctggagcc ccgagccagc cctgtccctc cccagtgcag catggcactc aggagataca
 1920
 ggctggacat ggggcagtcg ttctggggag gcctggccta gcagccaccc acctgagccc
 1980
 tcccgccag gcttcgtgct ggggtggggc atgtgccagg acaggagggg cccggcggaa
 2040
 agccagcccc ggactcatcg tgacattgag atcccactgg agggtagggg tggttaataaa
 2100
 cttctccaaa cgataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2160
 aaaa
 2164

<210> 2416

<211> 213

<212> PRT

<213> Homo sapiens

<400> 2416

Met	Glu	Val	Leu	Arg	Arg	Ser	Ser	Val	Phe	Ala	Ala	Glu	Ile	Met	Asp
1				5					10					15	
Ala	Phe	Asp	Arg	Trp	Pro	Thr	Asp	Lys	Glu	Leu	Val	Ala	Gln	Ala	Lys
		20						25					30		
Ala	Leu	Gly	Arg	Glu	Tyr	Val	His	Ala	Arg	Leu	Leu	Arg	Ala	Gly	Leu
		35					40					45			
Ser	Trp	Ser	Ala	Pro	Glu	Arg	Ala	Ser	Pro	Ala	Pro	Gly	Gly	Arg	Leu

```

      50              55              60
Ala Glu Val Cys Ala Val Leu Leu Arg Leu Gly Asp Glu Leu Glu Met
65              70              75              80
Ile Arg Pro Ser Val Tyr Arg Asn Val Ala Arg Gln Leu His Ile Ser
      85              90              95
Leu Gln Ser Glu Pro Val Val Thr Asp Ala Phe Leu Ala Val Ala Gly
      100             105             110
His Ile Phe Ser Ala Gly Ile Thr Trp Gly Lys Val Val Ser Leu Tyr
      115             120             125
Ala Val Ala Ala Gly Leu Ala Val Asp Cys Val Arg Gln Ala Gln Pro
      130             135             140
Ala Met Val His Ala Leu Val Asp Cys Leu Gly Glu Phe Val Arg Lys
145             150             155             160
Thr Leu Ala Thr Trp Leu Arg Arg Arg Gly Gly Trp Thr Asp Val Leu
      165             170             175
Lys Cys Val Val Ser Thr Asp Pro Gly Leu Arg Ser His Trp Leu Val
      180             185             190
Ala Ala Leu Cys Ser Phe Gly Arg Phe Leu Lys Ala Ala Phe Phe Val
      195             200             205
Leu Leu Pro Glu Arg
      210

```

<210> 2417

<211> 615

<212> DNA

<213> Homo sapiens

<400> 2417

```

nnagatcttt ggaatgggca gaactactaa atacagttaa tgcaccaaca agggtaagta
60
aagctgattt gattttcata ttgatacctc aatagttaag tgaaggacta gttattgctc
120
cagttgtagt ttttcacact ttaaaaaagg ctttcaatta taaaatcttt ctccattatt
180
acgttttttc acaactgtga tccacgccac agttgcaa atcaacata gaaaaattaa
240
ataacataat tgatgaaaag ttagtttttc acaaaaatac gaaaaatttc atcacctaga
300
gaggaaaatg ttatgacaac ctatttcgat aaaattgaaa aaatctcctt tgaggggagaa
360
aaatccacaa atccttttgc tttcaaacat tatgatgcta atcaagtaat tttaggtaaa
420
actatggctg aacattttacg cttaacgggtg tgttattggc ataccttttg ctggaatggg
480
aatgatatgt ttgggctagg ttctttggaa cgaagttggc agaaaaattc aaatttgctt
540
gctggcgag aacaaaaagc cgatattgct tttgagtttt tgaataagtt aggcgtgcct
600
tattattggt ttcatt
615

```

<210> 2418

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2418

```

Met Thr Thr Tyr Phe Asp Lys Ile Glu Lys Ile Ser Phe Glu Gly Glu
 1           5           10           15
Lys Ser Thr Asn Pro Phe Ala Phe Lys His Tyr Asp Ala Asn Gln Val
          20           25           30
Ile Leu Gly Lys Thr Met Ala Glu His Leu Arg Leu Thr Val Cys Tyr
          35           40           45
Trp His Thr Phe Cys Trp Asn Gly Asn Asp Met Phe Gly Leu Gly Ser
          50           55           60
Leu Glu Arg Ser Trp Gln Lys Asn Ser Asn Leu Leu Ala Gly Ala Glu
65           70           75           80
Gln Lys Ala Asp Ile Ala Phe Glu Phe Leu Asn Lys Leu Gly Val Pro
          85           90           95
Tyr Tyr Cys Phe His
          100

```

<210> 2419

<211> 318

<212> DNA

<213> Homo sapiens

<400> 2419

```

aaatttttcag aagtcctggt gttgcgcggt caaacagggg ccgaggaggg acgaccgcct
60
ccccgtgacg ctgcttcttc ttctgcctg cagctgaggg gtctgttttg tgcgcttcc
120
gtctcttctt cacgtacaca gggggcagct tagcctctgg gatgggagtg gcttcataca
180
tgagacacat gcccgagtcg aggtagatgt cgctgtcgtc ctgcggcggg gtgggtgggg
240
tccagaacgg catgacttct gtctgccccat cgacatcttc gtagacatac tccatgttgt
300
aggcatcccc tcacgcgt
318

```

<210> 2420

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2420

```

Met Glu Tyr Val Tyr Glu Asp Val Asp Gly Gln Thr Glu Val Met Pro
 1           5           10           15
Phe Trp Thr Pro Thr Pro Pro Gln Asp Asp Ser Asp Ile Tyr Leu
          20           25           30
Asp Ser Gly Met Cys Leu Met Tyr Glu Ala Thr Pro Ile Pro Glu Ala
          35           40           45
Lys Leu Pro Pro Val Tyr Val Arg Lys Glu Arg Lys Arg His Lys Thr
          50           55           60
Asp Pro Ser Ala Ala Gly Arg Lys Lys Lys Gln Arg His Gly Glu Ala
65           70           75           80
Val Val Pro Pro Arg Ser Leu Phe Asp Arg Ala Thr Pro Gly Leu Leu

```


85 90 95

Lys Ile

<210> 2421
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 2421
 nnacgcgtgg tgttctttat ggtcgttttc ggtctctgtc tgctgctggc aaaactgctg
 60
 tactggttgt ttgacagtgc agggcttggt cacagacgtg agccacaggg cagcacaacg
 120
 ctgtcgcaag tctgagtagg gattatcatg acggatacaa cttcagcccc gcgttacgcg
 180
 ctgcgtgggc tacagcttat tggctggcgt gacatgcaac acgcgctgga tttcctgttc
 240
 gcggacgggc agatgaaatc gggcacgctg gtggccatca acgcagaaaa gatgctggcg
 300
 gttgaagata atgcggaagt gaaaagcctg attgaagccg cggagtttaa ataccggcc
 360
 ggtattagcg tagtgcgttc aattcgtaaa aagttcccc acgctggagt gtgctcgcga
 420

<210> 2422
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2422
 Met Thr Asp Thr Thr Ser Ala Pro Arg Tyr Ala Leu Arg Gly Leu Gln
 1 5 10 15
 Leu Ile Gly Trp Arg Asp Met Gln His Ala Leu Asp Phe Leu Phe Ala
 20 25 30
 Asp Gly Gln Met Lys Ser Gly Thr Leu Val Ala Ile Asn Ala Glu Lys
 35 40 45
 Met Leu Ala Val Glu Asp Asn Ala Glu Val Lys Ser Leu Ile Glu Ala
 50 55 60
 Ala Glu Phe Lys Tyr Pro Ala Gly Ile Ser Val Val Arg Ser Ile Arg
 65 70 75 80
 Lys Lys Phe Pro His Ala Gly Val Cys Ser Arg
 85 90

<210> 2423
 <211> 371
 <212> DNA
 <213> Homo sapiens

<400> 2423
 tgatcaagtc ggaggattcg gcagggcgca gccatgaacg agaaggcgtc cgtctccaag
 60
 gagctcaacg ccaagcacia gaagatattg gaaggtcttc tacggcatcc tgagaataga
 120

gaatgcgcag actgcaagtc aaagggctcct cgatgggcaa gtgtgaatct aggtatcttt
 180
 atatgcatga catgttctgg cattcataga agcctggggg tgcacatatc taaggtaaga
 240
 tctgccaccc tggatacatg gctgccagag caagttgcat ttattcaatc aatgggaaac
 300
 gaaaaagcaa atagctattg ggaagcagag ctgcctccta actacgatag gggttgaata
 360
 gagaatttga t
 371

<210> 2424

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2424

Met	Asn	Glu	Lys	Ala	Ser	Val	Ser	Lys	Glu	Leu	Asn	Ala	Lys	His	Lys
1				5					10					15	
Lys	Ile	Leu	Glu	Gly	Leu	Leu	Arg	His	Pro	Glu	Asn	Arg	Glu	Cys	Ala
			20					25					30		
Asp	Cys	Lys	Ser	Lys	Gly	Pro	Arg	Trp	Ala	Ser	Val	Asn	Leu	Gly	Ile
		35					40					45			
Phe	Ile	Cys	Met	Thr	Cys	Ser	Gly	Ile	His	Arg	Ser	Leu	Gly	Val	His
	50					55					60				
Ile	Ser	Lys	Val	Arg	Ser	Ala	Thr	Leu	Asp	Thr	Trp	Leu	Pro	Glu	Gln
65				70					75					80	
Val	Ala	Phe	Ile	Gln	Ser	Met	Gly	Asn	Glu	Lys	Ala	Asn	Ser	Tyr	Trp
			85					90					95		
Glu	Ala	Glu	Leu	Pro	Pro	Asn	Tyr	Asp	Arg	Val	Gly	Ile	Glu	Asn	Leu
			100					105					110		

<210> 2425

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2425

accggtttgc aggcttgga agacgggcat ttcgacctgg tgcgcgtcga ctgcaacatg
 60
 cccgtcctga acggtctacga gatgaccgcg cgctgcgcg aacatgaagc cncgcccag
 120
 acctcccggc ctgcacgggg gtctgggttc accgcccacg cccagcccga ggaacgcccc
 180
 cgctgcaagg aagccggcat gaacgactgc ctgttcaagc ccatcagcct gaccaccctc
 240
 aaccagaaac tcgccgacgt cagccgcgcg ccgcgtccga gccaggccgc cttcagcctc
 300
 gacggcctgc acgcctgac cgggggagag ccgctgctga tgcgtcgtt gatcgacgag
 360
 ctgctgagca gttgccaggc ggcccgcgag gcaactgctg gactgcccat c
 411

<210> 2426

<211> 137
 <212> PRT
 <213> Homo sapiens

<400> 2426
 Thr Gly Leu Gln Ala Trp Lys Asp Gly His Phe Asp Leu Val Ile Val
 1 5 10 15
 Asp Cys Asn Met Pro Val Leu Asn Gly Tyr Glu Met Thr Arg Arg Leu
 20 25 30
 Arg Glu His Glu Ala Xaa Ala Met Thr Ser Arg Pro Ala Arg Gly Phe
 35 40 45
 Gly Phe Thr Ala His Ala Gln Pro Glu Glu Arg Pro Arg Cys Lys Glu
 50 55 60
 Ala Gly Met Asn Asp Cys Leu Phe Lys Pro Ile Ser Leu Thr Thr Leu
 65 70 75 80
 Asn Gln Lys Leu Ala Asp Val Thr Pro Arg Pro Arg Pro Ser Gln Ala
 85 90 95
 Ala Phe Ser Leu Asp Gly Leu His Ala Leu Thr Gly Gly Glu Pro Leu
 100 105 110
 Leu Met Arg Arg Leu Ile Asp Glu Leu Leu Ser Ser Cys Gln Ala Ala
 115 120 125
 Arg Glu Ala Leu Leu Gly Leu Pro Ile
 130 135

<210> 2427
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 2427
 cataacaaag gcttagggat tttggtgccc tgtgcaattn tggcagcttt tctgttgatt
 60
 tggagcgtaa aatgttgcag agcccagcta gaagccagga ggagcagaca ccctgctgat
 120
 ggagcccaac aagaaagatg ttgtgtccct cctggtgagc gctgtcccag tgcacccgat
 180
 aatggcgaag aaaatgtgcc tctttcagga aaagtatagg aaatgagaga agactgtgac
 240
 aactcatgac ctgcacacct aatatccagt gacttcatct ccccttcacg cgt
 293

<210> 2428
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 2428
 His Asn Lys Gly Leu Gly Ile Leu Val Pro Cys Ala Ile Xaa Ala Ala
 1 5 10 15
 Phe Leu Leu Ile Trp Ser Val Lys Cys Cys Arg Ala Gln Leu Glu Ala
 20 25 30
 Arg Arg Ser Arg His Pro Ala Asp Gly Ala Gln Gln Glu Arg Cys Cys
 35 40 45
 Val Pro Pro Gly Glu Arg Cys Pro Ser Ala Pro Asp Asn Gly Glu Glu

```

      50                               55
Asn Val Pro Leu Ser Gly Lys Val
65                               70

```

```
<210> 2429
<211> 428
<212> DNA
<213> Homo sapiens
```

```

<400> 2429
tcgcgctcggg tcggcgaggt tgacgctgtt gatcctaagc cccatgagga cgacgacctc
60
atcgccgaga tggcggggct acaggctgct cagtcgatcc ggggaatcctt gaacaaggct
120
gatgtcctgc tcaatgggggt agagacgtcg accgggtccgc agccgggtgc gcttgctttg
180
ctggaacagg ccgtacatga gctggatggc actgggggatg ctgatcctcg cgccgctgag
240
ttggctgagc gcgcccgcca gatgtcgtat gacctcactg acctcgctgc ttcggctcgt
300
ggccatgcgg ctcgggctga agctgatccg caacggcttg aggaattggg gggctgtttg
360
gcggctattc agcggctggt gagggcgcgc accaccaccc tcgacgatct cctcgactcc
420
actgcggc
428

```

```
<210> 2430
<211> 142
<212> PRT
<213> Homo sapiens
```

<400> 2430															
Ser	Arg	Arg	Val	Gly	Glu	Val	Asp	Ala	Val	Asp	Pro	Lys	Pro	His	Glu
1				5					10					15	
Asp	Asp	Asp	Leu	Ile	Ala	Glu	Met	Ala	Gly	Leu	Gln	Ala	Ala	Gln	Ser
			20					25					30		
Ile	Arg	Glu	Ser	Leu	Asn	Lys	Ala	Asp	Val	Leu	Leu	Asn	Gly	Val	Glu
		35				40						45			
Thr	Ser	Thr	Gly	Pro	Gln	Pro	Gly	Ala	Leu	Ala	Leu	Leu	Glu	Gln	Ala
	50					55					60				
Val	His	Glu	Leu	Asp	Gly	Thr	Gly	Asp	Ala	Asp	Pro	Arg	Ala	Ala	Glu
65					70					75					80
Leu	Ala	Glu	Arg	Ala	Arg	Gln	Met	Ser	Tyr	Asp	Leu	Thr	Asp	Leu	Ala
				85					90					95	
Ala	Ser	Val	Ala	Gly	His	Ala	Ala	Arg	Ala	Glu	Ala	Asp	Pro	Gln	Arg
			100					105					110		
Leu	Glu	Glu	Leu	Gly	Gly	Arg	Leu	Ala	Ala	Ile	Gln	Arg	Leu	Leu	Arg
		115				120						125			
Ala	Arg	Thr	Thr	Thr	Leu	Asp	Asp	Leu	Leu	Asp	Ser	Thr	Ala		
	130					135					140				

```
<210> 2431
<211> 409
```

<212> DNA

<213> Homo sapiens

<400> 2431

```

nnacgcgtta acaattaaag cattaacgcc agatgaatgg caaaaacaaa aacattttat
60
atagtcgggt aaatagggat tttcatgggt caatttatta ttcaagggtg ctgccagtta
120
aatggcgagg taacaatttc tggggcaaaa aatgccgcat taccaatect atttgcact
180
ttattatctg aggggtgatat caatttaagc aatgtaccgc ttttaaaaga tattgccacc
240
actatcgagt tgttaaaaga gctgggtgct actgctactc agactcaaca ctgcgtgcat
300
attaatgcga aagaagttaa gaactatact gcttcttatg aattagttag aagtatgcgt
360
gcttcaattt tggcattagg tccattgggt gctcgggtcg gtgaagctt
409

```

<210> 2432

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2432

```

Met Gly Gln Phe Ile Ile Gln Gly Gly Cys Gln Leu Asn Gly Glu Val
 1           5           10           15
Thr Ile Ser Gly Ala Lys Asn Ala Ala Leu Pro Ile Leu Phe Ala Thr
      20           25           30
Leu Leu Ser Glu Gly Asp Ile Asn Leu Ser Asn Val Pro Leu Leu Lys
      35           40           45
Asp Ile Ala Thr Thr Ile Glu Leu Leu Lys Glu Leu Gly Ala Thr Ala
      50           55           60
Thr Gln Thr Gln His Cys Val His Ile Asn Ala Lys Glu Val Lys Asn
      65           70           75           80
Tyr Thr Ala Ser Tyr Glu Leu Val Arg Ser Met Arg Ala Ser Ile Leu
      85           90           95
Ala Leu Gly Pro Leu Val Ala Arg Phe Gly Glu Ala
      100           105

```

<210> 2433

<211> 655

<212> DNA

<213> Homo sapiens

<400> 2433

```

caattgccta caatattcag tacagtcaca tgctgcatag gtttgcagtc tagaaacaac
60
aggctacacc acacagccga ggcgtgtgga ggactatacc atctgggttt acgtaagtgc
120
gctctatgat gctcacgtaa caatgaaatc acggaatctc tctctcagaa catttccccg
180
ttgtgaagca gcacgtgact ataatctttt cccagggtta cccctgaagt tcaagtgcaa
240

```

tgcccttgca cagcacagag caggggacga taggaggcgt gccttctcca gctgaaccac
 300
 cgggccagcc gggcgggcag tgggggttg ggggagggtt gaccatttg tgctgccacg
 360
 accaaagaga caggatcttg gagagagtga ggcctctgtg caggggacga tgaaggccca
 420
 atctggggac atcagggaaa gcagcaaggg tctggctgat tgtgcaaaaa gaactttttc
 480
 tgtgactgcc gtgttccaaa cacacccttt gcttttataa aaacccaaac tgggagggtt
 540
 agcaaaaggc acagtttcag agcataataa agacagagca gaatgggaga ggaggttaat
 600
 caaatgggcc atcactcaat gcagggaggg gaggggtgtg ctcaggacaa cgcgt
 655

<210> 2434

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2434

Met	Ala	His	Leu	Ile	Asn	Leu	Leu	Ser	His	Ser	Ala	Leu	Ser	Leu	Leu
1				5					10					15	
Cys	Ser	Glu	Thr	Val	Pro	Phe	Ala	Lys	Pro	Pro	Ser	Leu	Gly	Phe	Cys
			20					25					30		
Lys	Ser	Lys	Gly	Cys	Val	Trp	Asn	Thr	Ala	Val	Thr	Glu	Lys	Val	Leu
		35					40					45			
Phe	Ala	Gln	Ser	Ala	Arg	Pro	Leu	Leu	Leu	Ser	Leu	Met	Ser	Pro	Asp
	50					55					60				
Trp	Ala	Phe	Ile	Val	Pro	Cys	Thr	Glu	Ala	Ser	Leu	Ser	Pro	Arg	Ser
65					70					75				80	
Cys	Leu	Phe	Gly	Arg	Gly	Ser	Thr	Asn	Gly	Ser	Thr	Leu	Pro	Pro	Thr
			85						90					95	
Pro	Thr	Ala	Arg	Pro	Ala	Gly	Pro	Val	Val	Gln	Leu	Glu	Lys	Ala	Arg
			100					105					110		
Leu	Leu	Ser	Ser	Pro	Ala	Leu	Cys	Cys	Ala	Gly	Ala	Leu	His	Leu	Asn
		115					120					125			
Phe	Arg	Gly	Lys	Pro	Gly	Lys	Arg	Leu							
	130					135									

<210> 2435

<211> 401

<212> DNA

<213> Homo sapiens

<400> 2435

aagctttcct tcaccggttc taccacagtg ggccggaccc ttttgaagng cgcgggccgat
 60
 aacgtgctgc gtacctccat ggaactgggc ngcaatgccc cattcattgt ctttgaggac
 120
 gcagatattg accaagcggc ccagggtgag atggggcgcca agatgcgcaa tatcgggcag
 180
 gcctgcaccg cagctaaccg cttcttggtc cagagtgctg ttgctgagga gttctctgag
 240

aaactcgttg cggagtttga gaagctcaat ctgggcaatg gtatggacga aggtattacc
 300
 tgcggacctc tegtcgagtc caaggctttg gagagcattg cggcattggt ggacgatgct
 360
 gcagaaaagg gcgctaccat ctccaccggc ggtaagcgcg c
 401

<210> 2436
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 2436
 Lys Leu Ser Phe Thr Gly Ser Thr Pro Val Gly Arg Thr Leu Leu Lys
 1 5 10 15
 Xaa Ala Ala Asp Asn Val Leu Arg Thr Ser Met Glu Leu Gly Xaa Asn
 20 25 30
 Ala Pro Phe Ile Val Phe Glu Asp Ala Asp Ile Asp Gln Ala Val Gln
 35 40 45
 Gly Ala Met Gly Ala Lys Met Arg Asn Ile Gly Glu Ala Cys Thr Ala
 50 55 60
 Ala Asn Arg Phe Leu Val His Glu Ser Val Ala Glu Glu Phe Ser Glu
 65 70 75 80
 Lys Leu Val Ala Glu Phe Glu Lys Leu Asn Leu Gly Asn Gly Met Asp
 85 90 95
 Glu Gly Ile Thr Cys Gly Pro Leu Val Glu Ser Lys Ala Leu Glu Ser
 100 105 110
 Ile Ala Ala Leu Val Asp Asp Ala Ala Glu Lys Gly Ala Thr Ile Ser
 115 120 125
 Thr Gly Gly Lys Arg
 130

<210> 2437
 <211> 449
 <212> DNA
 <213> Homo sapiens

<400> 2437
 aagcttagta ccaaaaagaa aacaaaaaca aaaacaaaac aaaccccccc cccacagag
 60
 taaaataacg gaaaaagatc tactatgcta gcactaaca aataatacgt agttatgaaa
 120
 atggtatgta tttttcaagc tagacgttca taatggtaga acatgaggag gaaaactgcc
 180
 tcttaaattcc caccacttac tgtgacacag tgaccggtcc ctgcagcgga ctggatagtt
 240
 gtatcagagt cctggacgga aacagatggc actcaaaagg tggcgcgag ttcagagaaa
 300
 tgcctatgta cggatttggt ccaatgcctc agcctgacct cagggaacctt cgggggtctg
 360
 ctccgcgccc acccttacac atctgtgacc ccacacactt ccaccccagc gccacattta
 420
 agttccagtc atttcatttt atcgctgtg
 449

<210> 2438
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 2438
 Met Val Glu His Glu Glu Asn Cys Leu Leu Asn Pro Thr Thr Tyr
 1 5 10 15
 Cys Asp Thr Val Thr Gly Pro Cys Ser Gly Leu Asp Ser Cys Ile Arg
 20 25 30
 Val Leu Asp Gly Asn Arg Trp His Ser Lys Gly Gly Ala Gln Phe Arg
 35 40 45
 Glu Met Pro Met Tyr Gly Phe Gly Pro Met Pro Gln Pro Asp Leu Arg
 50 55 60
 Asp Leu Arg Gly Ser Ala Pro Arg Pro Pro Leu His Ile Cys Asp Pro
 65 70 75 80
 Thr His Phe His Pro Ser Ala Thr Phe Lys Phe Gln Ser Phe His Phe
 85 90 95
 Ile Ala Val

<210> 2439
 <211> 4425
 <212> DNA
 <213> Homo sapiens

<400> 2439
 ccctcagcat cggaccagag tacttggtat ctggatgaat cgacactcac tgacaacatc
 60
 aaaaagacac tgcacaagtt ctgtggcccc tcccctgtgg tcttcagtga tgtgaactcc
 120
 atgtatctgt cttccacgga gccgccagcc gctgctgaat gggcatgtct gctgcgccct
 180
 ctgagggggcc gtgagccaga gggcgtctgg aacctgctaa gcattgtgcg ggagatgttc
 240
 aagcggaggg acagcaatgc tgcccccttg ttggaaatcc tcaactgacca gtgcctcacc
 300
 tatgaacaga taacagggtg gtggtatagc gtacgtacct cagcctcaca cagcagtgcc
 360
 agtgggcaca cgggccgtag caacgggcag tcagaggtgg cagcccatgc ctgtgccage
 420
 atgtgtgacg agatggtcac actgtggagg ctggccgtgc tggaccctgc actcagcccc
 480
 cagcggcgcc ggggaactgtg tacgcagctg cggcagtggc aactgaaggt gattgagaac
 540
 gtcaagcggg gccaacacaa gaagacgctg gagcggctct tccccggctt ccggccagcg
 600
 gtggaggcct gctacttcaa ctgggaagag gcctaccac ttcctggtgt cacctacagc
 660
 ggactgaca ggaagctggc actgtgctgg gcccgggccc tgccctctcg gccagggtgcc
 720
 tcccgtctg ggggcctgga ggaatcccg gaccggcccc gacccttcc tactgagcca
 780

gctgtgcggc ccaaggagcc tgggaccaag cgaaagggct tgggtgaggg ggtccctca
840
tcacagcggg gtccccgccg cctctcagct gaagggggag ataaagctct acataagatg
900
ggtccagggtg ggggcaaagc caaggcactg ggtggggctg gcagtgggag caagggtca
960
gcagggtggc gaagcaagcg acggctgagc agcgaagaca gctccctgga gccagacctg
1020
gccgagatga gcctggatga cagcagcctg gccctgggcg cagaggccag caccttcggg
1080
ggattccctg agagccctcc accctgtcct ctccacgggtg gctcccgagg cccttccact
1140
ttccttcctg agccccaga tacttatgaa gaagatgggtg gtgtgtactt ctcggaaggg
1200
cctgagcctc ccacagcctc tgttggtccc cctggcctac tgcttgggga tgtctgtacc
1260
caggacgacc tcccttctac agatgagagt ggcaatgggc ttcccaaac caaagaggca
1320
gccctgcag ttggagagga ggatgatgac taccaggcgt actatctgaa tgcccaggat
1380
ggggctgggg gcgaggaaga gaaggccgag ggcggggctg gggaggagca cgacctgttt
1440
gctgggctga agccactgga acaggagagt cgcattggagg tactgtttgc ctgtgctgag
1500
gccctgcatg cgcattggta tagcagttag gcctcccgtc tctgttggga gcttgcccag
1560
gatctgctag ccaaccacc cgacctcaag ggcaagaaga acaaggatc cagcagccgt
1620
cagacctggg tggtaccac caccctgagc aaggcggcct tctgttgac agtgctaagt
1680
gagcgtccag agcgccacaa cctggccttc cgagttggca tgtttgcctt ggagctacag
1740
aggcctccag cttctaccac ggcttggag gtgaagctgg cataccagga gtctgagggtg
1800
gctgccctgc tcaagaagat ccctctgggt ccaagtgaga tgagtaccat gcggtgccgg
1860
gcagaggaac ttcgggaggg gacactctgt gactatcggc ctgtgttgcc tctcatgctg
1920
gccagtttca tctttgacgt tctctgtgct ccagtgggtt ctcccacagg ttcccggccc
1980
ccaagtcgca actggaacag cgagacacct ggggatgagg agcttggatt tgaagcagca
2040
gttgctgcct tgggcatgaa gacaacagtg agcgaggcag aacatcccct cttatgtgaa
2100
ggcacacgtc gggagaaggg tgacctggca ttagcactaa tgatcactta caaggacgac
2160
caggccaagc ttaagaagat cttagacaaa ctcttgacc gagagagcca gacacataag
2220
ccacagacgc tgagttcttt ctactcatct agccgcccaa ccacagccag ccagaggctc
2280
ccttcaaagc acggggggcc atctgcccc ggggcctgc aaccactgac ctgaggctct
2340
gcagggcctg ctcaaccagg gagtgtggca ggggctgggc caggccccac tgagggtctc
2400

acagagaaga atgtgcctga gagttcccca cattccccct gtgaggggtct tccatctgag
2460
gcagctttga ccccaaggcc agaagggaag gttcctagcc gcttggcact tggcagtcgt
2520
ggaggctata atggacgggg atgggggtcc tcaggacggc ctaagaagaa gcacacaggc
2580
atggccagca ttgacagcag tgcccctgaa acaacatcgg atagttcccc caccttaagc
2640
cggagaccac ttcgaggggg ctgggcccc acctcctggg gtcgaggtca ggacagtga
2700
agcattagca gctcttcttc ggactccctg ggctcctcat cctccagtgg aagtcgccgg
2760
gccagtcca gtggaggagc ccgggcgaag actggtgaag ttggcaggta caagggccgc
2820
cgccccgaga gtcatgcccc tcatgtaccc aatcagccat cagaggcagc tgcacacttc
2880
tacttcgagc tggcgaagac agtgctgatc aaggcagggg gcaacagcag cacttccatt
2940
ttcacacatc catcttcttc agggggccac cagggtcctc accgcaacct gcacctttgc
3000
gccttcgaga ttgggcttta tgcccttggc ctgcacaact ttgtttctcc caactggctc
3060
tcacgtactt attcttccca cgtttctctg attacaggcc aggccatgga gataggcagc
3120
gcagccctga ctatactggt agaatgctgg gatgggcacc tgacaccccc tgaggttgca
3180
tccttggtg acagggcatc acgggcaaga gactccaata tggtgagggc ggagcagag
3240
ctggccctga gctgcctgcc tcacgcccc gattgaacc ctaatgagat ccagcgggcc
3300
ctggtgcagt gcaaggaaca ggacaacctg atgttgagga aggcctgcat ggcagtggaa
3360
gaggcagcta agggtggggg cgtgtacct gaagtgttgt ttgaggttgc tcaccagtgg
3420
ttctggctat atgagcaaac tgcaggtggc tcatccacag cccgtgaagg ggctacaagc
3480
tgtagtcca gtgggatcag ggcaggtggg gaagctgggc ggggtatgcc tgagggtaga
3540
gggggcccag ggactgagcc gggtacagtg gcagcggcag cagtgcagc agcagccaca
3600
gtggtgcccg tcatatcggg ggggtctagt ttatacccg gtccaggact ggggcatggc
3660
cactccccctg gcctgcaccc ctacactgct ctacagcccc acctgccctg tagccctcag
3720
tatctcactc acccagctca ccctgcccac cccatgcctc acatgccccg gcctgccgtc
3780
ttccctgtgc ccagctctgc ataccacag gtgagaccag tgttctgctg gggggtaagg
3840
catgggaaaa tactgggaat tcataggggg ttggagtggg tactctggga gtataattgg
3900
tcagtcggag agtcttggtg aggtgggtgg agtctggggg acccagcca actaaaataa
3960
gaaatgacgg ccgggcatgg tggtcatgc ctgtaatccc agcactttga gaggccgatg
4020

tgggtggatc acttgaggtc aggagttcga gaccagcctg gccaacatgg ggaaaccccg
 4080
 tctctactaa aaattagctg agtgcacgcc tgtaatccca gcttcttggg aggctgagat
 4140
 gggaatcact tgaacctggg aggcagaggt tgcagtgagc cgatatcgtg ccaactgcact
 4200
 ccagcctgga ggacagagcg agactctatc tcaaaaaaca tgtcaggata gcagcttgtg
 4260
 ggggtgaagc ccgacagcaa catcctaate aagtttggca tcttccctt tcttctccct
 4320
 gcccttaggg tgtgcatcct gcattcctag gggctcagta cccttattca gtgactcctc
 4380
 cctcacttgc tgccactgct gtgtctttcc ccgttccttc catgg
 4425

<210> 2440

<211> 1306

<212> PRT

<213> Homo sapiens

<400> 2440

Pro	Ser	Ala	Ser	Asp	Gln	Ser	Thr	Trp	Tyr	Leu	Asp	Glu	Ser	Thr	Leu
1				5					10					15	
Thr	Asp	Asn	Ile	Lys	Lys	Thr	Leu	His	Lys	Phe	Cys	Gly	Pro	Ser	Pro
			20					25					30		
Val	Val	Phe	Ser	Asp	Val	Asn	Ser	Met	Tyr	Leu	Ser	Ser	Thr	Glu	Pro
		35					40					45			
Pro	Ala	Ala	Ala	Glu	Trp	Ala	Cys	Leu	Leu	Arg	Pro	Leu	Arg	Gly	Arg
	50					55				60					
Glu	Pro	Glu	Gly	Val	Trp	Asn	Leu	Leu	Ser	Ile	Val	Arg	Glu	Met	Phe
65					70				75					80	
Lys	Arg	Arg	Asp	Ser	Asn	Ala	Ala	Pro	Leu	Leu	Glu	Ile	Leu	Thr	Asp
			85					90					95		
Gln	Cys	Leu	Thr	Tyr	Glu	Gln	Ile	Thr	Gly	Trp	Trp	Tyr	Ser	Val	Arg
		100						105					110		
Thr	Ser	Ala	Ser	His	Ser	Ser	Ala	Ser	Gly	His	Thr	Gly	Arg	Ser	Asn
	115						120					125			
Gly	Gln	Ser	Glu	Val	Ala	Ala	His	Ala	Cys	Ala	Ser	Met	Cys	Asp	Glu
	130					135				140					
Met	Val	Thr	Leu	Trp	Arg	Leu	Ala	Val	Leu	Asp	Pro	Ala	Leu	Ser	Pro
145					150					155					160
Gln	Arg	Arg	Arg	Glu	Leu	Cys	Thr	Gln	Leu	Arg	Gln	Trp	Gln	Leu	Lys
			165					170					175		
Val	Ile	Glu	Asn	Val	Lys	Arg	Gly	Gln	His	Lys	Lys	Thr	Leu	Glu	Arg
		180						185					190		
Leu	Phe	Pro	Gly	Phe	Arg	Pro	Ala	Val	Glu	Ala	Cys	Tyr	Phe	Asn	Trp
	195						200					205			
Glu	Glu	Ala	Tyr	Pro	Leu	Pro	Gly	Val	Thr	Tyr	Ser	Gly	Thr	Asp	Arg
	210					215					220				
Lys	Leu	Ala	Leu	Cys	Trp	Ala	Arg	Ala	Leu	Pro	Ser	Arg	Pro	Gly	Ala
225					230					235				240	
Ser	Arg	Ser	Gly	Gly	Leu	Glu	Glu	Ser	Arg	Asp	Arg	Pro	Arg	Pro	Leu
			245					250					255		
Pro	Thr	Glu	Pro	Ala	Val	Arg	Pro	Lys	Glu	Pro	Gly	Thr	Lys	Arg	Lys

			260						265						270		
Gly	Leu	Gly	Glu	Gly	Val	Pro	Ser	Ser	Gln	Arg	Gly	Pro	Arg	Arg	Leu		
		275					280					285					
Ser	Ala	Glu	Gly	Gly	Asp	Lys	Ala	Leu	His	Lys	Met	Gly	Pro	Gly	Gly		
	290					295					300						
Gly	Lys	Ala	Lys	Ala	Leu	Gly	Gly	Ala	Gly	Ser	Gly	Ser	Lys	Gly	Ser		
305					310					315					320		
Ala	Gly	Gly	Gly	Ser	Lys	Arg	Arg	Leu	Ser	Ser	Glu	Asp	Ser	Ser	Leu		
				325				330						335			
Glu	Pro	Asp	Leu	Ala	Glu	Met	Ser	Leu	Asp	Asp	Ser	Ser	Leu	Ala	Leu		
			340					345					350				
Gly	Ala	Glu	Ala	Ser	Thr	Phe	Gly	Gly	Phe	Pro	Glu	Ser	Pro	Pro	Pro		
		355					360					365					
Cys	Pro	Leu	His	Gly	Gly	Ser	Arg	Gly	Pro	Ser	Thr	Phe	Leu	Pro	Glu		
	370					375					380						
Pro	Pro	Asp	Thr	Tyr	Glu	Glu	Asp	Gly	Gly	Val	Tyr	Phe	Ser	Glu	Gly		
385					390					395					400		
Pro	Glu	Pro	Pro	Thr	Ala	Ser	Val	Gly	Pro	Pro	Gly	Leu	Leu	Pro	Gly		
				405				410						415			
Asp	Val	Cys	Thr	Gln	Asp	Asp	Leu	Pro	Ser	Thr	Asp	Glu	Ser	Gly	Asn		
			420				425					430					
Gly	Leu	Pro	Lys	Thr	Lys	Glu	Ala	Ala	Pro	Ala	Val	Gly	Glu	Glu	Asp		
		435				440					445						
Asp	Asp	Tyr	Gln	Ala	Tyr	Tyr	Leu	Asn	Ala	Gln	Asp	Gly	Ala	Gly	Gly		
	450					455				460							
Glu	Glu	Glu	Lys	Ala	Glu	Gly	Gly	Ala	Gly	Glu	Glu	His	Asp	Leu	Phe		
465					470					475					480		
Ala	Gly	Leu	Lys	Pro	Leu	Glu	Gln	Glu	Ser	Arg	Met	Glu	Val	Leu	Phe		
			485					490						495			
Ala	Cys	Ala	Glu	Ala	Leu	His	Ala	His	Gly	Tyr	Ser	Ser	Glu	Ala	Ser		
			500				505						510				
Arg	Leu	Thr	Val	Glu	Leu	Ala	Gln	Asp	Leu	Leu	Ala	Asn	Pro	Pro	Asp		
		515				520						525					
Leu	Lys	Gly	Lys	Lys	Asn	Lys	Val	Ser	Thr	Ser	Arg	Gln	Thr	Trp	Val		
	530					535					540						
Ala	Thr	Asn	Thr	Leu	Ser	Lys	Ala	Ala	Phe	Leu	Leu	Thr	Val	Leu	Ser		
545					550					555					560		
Glu	Arg	Pro	Glu	Arg	His	Asn	Leu	Ala	Phe	Arg	Val	Gly	Met	Phe	Ala		
				565				570						575			
Leu	Glu	Leu	Gln	Arg	Pro	Pro	Ala	Ser	Thr	Lys	Ala	Leu	Glu	Val	Lys		
			580				585						590				
Leu	Ala	Tyr	Gln	Glu	Ser	Glu	Val	Ala	Ala	Leu	Leu	Lys	Lys	Ile	Pro		
		595				600											

690		695		700
Glu Lys Gly Asp Leu	Ala Leu Ala Leu Met	Ile Thr Tyr Lys Asp Asp		
705	710	715	720	
Gln Ala Lys Leu Lys	Lys Ile Leu Asp Lys	Leu Leu Asp Arg Glu Ser		
	725	730	735	
Gln Thr His Lys Pro	Gln Thr Leu Ser Ser	Phe Tyr Ser Ser Arg		
	740	745	750	
Pro Thr Thr Ala Ser	Gln Arg Ser Pro Ser	Lys His Gly Gly Pro Ser		
	755	760	765	
Ala Pro Gly Ala Leu	Gln Pro Leu Thr Ser	Gly Ser Ala Gly Pro Ala		
	770	775	780	
Gln Pro Gly Ser Val	Ala Gly Ala Gly Pro	Gly Pro Thr Glu Gly Phe		
785	790	795	800	
Thr Glu Lys Asn Val	Pro Glu Ser Ser Pro	His Ser Pro Cys Glu Gly		
	805	810	815	
Leu Pro Ser Glu Ala	Ala Leu Thr Pro Arg	Pro Glu Gly Lys Val Pro		
	820	825	830	
Ser Arg Leu Ala Leu	Gly Ser Arg Gly Gly	Tyr Asn Gly Arg Gly Trp		
	835	840	845	
Gly Ser Ser Gly Arg	Pro Lys Lys Lys His	Thr Gly Met Ala Ser Ile		
	850	855	860	
Asp Ser Ser Ala Pro	Glu Thr Thr Ser Asp	Ser Ser Pro Thr Leu Ser		
865	870	875	880	
Arg Arg Pro Leu Arg	Gly Gly Trp Ala Pro	Thr Ser Trp Gly Arg Gly		
	885	890	895	
Gln Asp Ser Asp Ser	Ile Ser Ser Ser Ser	Ser Asp Ser Leu Gly Ser		
	900	905	910	
Ser Ser Ser Ser Gly	Ser Arg Arg Ala Ser	Ala Ser Gly Gly Ala Arg		
	915	920	925	
Ala Lys Thr Val Glu	Val Gly Arg Tyr Lys	Gly Arg Arg Pro Glu Ser		
	930	935	940	
His Ala Pro His Val	Pro Asn Gln Pro Ser	Glu Ala Ala Ala His Phe		
945	950	955	960	
Tyr Phe Glu Leu Ala	Lys Thr Val Leu Ile	Lys Ala Gly Gly Asn Ser		
	965	970	975	
Ser Thr Ser Ile Phe	Thr His Pro Ser Ser	Ser Gly Gly His Gln Gly		
	980	985	990	
Pro His Arg Asn Leu	His Leu Cys Ala Phe	Glu Ile Gly Leu Tyr Ala		
	995	1000	1005	
Leu Gly Leu His Asn	Phe Val Ser Pro Asn	Trp Leu Ser Arg Thr Tyr		
	1010	1015	1020	
Ser Ser His Val Ser	Trp Ile Thr Gly Gln	Ala Met Glu Ile Gly Ser		
1025	1030	1035	1040	
Ala Ala Leu Thr Ile	Leu Val Glu Cys Trp	Asp Gly His Leu Thr Pro		
	1045	1050	1055	
Pro Glu Val Ala Ser	Leu Ala Asp Arg Ala	Ser Arg Ala Arg Asp Ser		
	1060	1065	1070	
Asn Met Val Arg Ala	Ala Ala Glu Leu Ala	Leu Ser Cys Leu Pro His		
	1075	1080	1085	
Ala His Ala Leu Asn	Pro Asn Glu Ile Gln	Arg Ala Leu Val Gln Cys		
	1090	1095	1100	
Lys Glu Gln Asp Asn	Leu Met Leu Glu Lys	Ala Cys Met Ala Val Glu		
1105	1110	1115	1120	
Glu Ala Ala Lys Gly	Gly Gly Val Tyr Pro	Glu Val Leu Phe Glu Val		

										1125			1130			1135					
Ala	His	Gln	Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser						
										1140			1145			1150					
Thr	Ala	Arg	Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala						
										1155			1160			1165					
Gly	Gly	Glu	Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly						
										1170			1175			1180					
Thr	Glu	Pro	Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr						
										1185			1190			1195			1200		
Val	Val	Pro	Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly						
										1205			1210			1215					
Leu	Gly	His	Gly	His	Ser	Pro	Gly	Leu	His	Pro	Tyr	Thr	Ala	Leu	Gln						
										1220			1225			1230					
Pro	His	Leu	Pro	Cys	Ser	Pro	Gln	Tyr	Leu	Thr	His	Pro	Ala	His	Pro						
										1235			1240			1245					
Ala	His	Pro	Met	Pro	His	Met	Pro	Arg	Pro	Ala	Val	Phe	Pro	Val	Pro						
										1250			1255			1260					
Ser	Ser	Ala	Tyr	Pro	Gln	Val	Arg	Pro	Val	Phe	Cys	Trp	Gly	Val	Arg						
										1265			1270			1275			1280		
His	Gly	Lys	Ile	Leu	Gly	Ile	His	Arg	Gly	Leu	Glu	Trp	Val	Leu	Trp						
										1285			1290			1295					
Glu	Tyr	Asn	Trp	Ser	Val	Gly	Glu	Ser	Trp												
										1300			1305								

```
<210> 2441
<211> 2244
<212> DNA
<213> Homo sapiens
```

```

<400> 2441
naccgctgtg tgtctgcatg catccatgtg tctgtacatg tatgtctcca tgtgtgggtgt
60
ggaggacaca gaaggatgga gggaaaggca ccactcacag aggcggcgct ggagaatttt
120
ccatttgтта ttttgggttt ggtgaacatg cactttgcgt catgcaaatc aggtttctaa
180
acattaacaa ccggagagaa atgacatttt ggggccgcgc gtgactcttg cgtgcctctg
240
ctgccccctg gtggcagccc cgagtcactt ccagcagggc cccccaccc caagggccca
300
gcctcgggca ggaagggtag aaagcccccg ccgtggttct gccacgaggt ctcttgaaa
360
tgaggggaac agcacagcga cgtccttgcg tcctaaatgc atccccctgt ggccgttttt
420
cgccacacag gcttgga aaa atctctgcgt cactgagcag cattttaacc tcttgaatga
480
gatgcctccg accttttgga tcctctttct gcacctctca ggggacaggt cccgtctgta
540
cggcgctgcc tacgagaaac ccaagttcat tactgcagcc aaaggaaagg tgcaggcggt
600
gggaggctcc tgcaaggatga tgcgtctggc cataagtccc actgccttct cccacctgct
660
ggcctgtgcc cagcagttcc ggaagcagac ccaggccccag gtgtacagtg aggacatggc
720

```

cctgaacata ggctcggaac cagaaggcct gcaggtggaa gagaaggagc gccctgtgca
780
gaggctcagt agcgtcctgg ggcccctgga ggagcttctg cagccgctat tccccctgct
840
cagcctctcc aaggccagag tgcagacacc tgcggttggt gccgattcag ggaagtcgaa
900
gggcaaagac aaggagagga aaacgtccac aggacaacac agcacagtcc agcctgaggt
960
tgccgataag atagtcctgg tcacagacag acatctcctg gagctgccac tggaaggtct
1020
ctctgtgttc gatgaaggga caatttcctc tgtgtcacga gaattttctc ttcaaagtct
1080
gtggaatcgc ctccataaag aagagacaga aggtggcgtg aaaaaggagg gaagaagcag
1140
agaccccaa aagagaagcc tagcgaagaa gggcaggaag ggcagcatcc cccggacat
1200
ccccctgac tgcacatag tcgactcaga caacttcaag ttcgtcgtgg acccatacga
1260
ggaggcccag ggcccagaaa tgctaactcc tgtctccatc acccaagaca ttttggaag
1320
attccaagac acattcacgt cgcgatgggc gggacatctg ggaagcaagc actttccag
1380
ccaggcccag tgggagcagg ccctgggcag ctgcagcggc ttcttcttct atggaatgga
1440
gagcttctg tcccatatat tagtggagag attggtcgcc atgaacttgc aagagtgcc
1500
ggtggcagtc ctgctggacc tggcacggtc ctaccagagc ttgaagaggc acatggagag
1560
cgtggagcac aggagatctg ttggccgttg ggaagccaat tggagaaacg gtgcgtctcc
1620
ttcagaagat gagtggcgac gaggcgtga accaaggcga ggcttctcag accttgaagg
1680
acaagctgct gctgctccaa agctccgagc tccttccac cacgctcaac ttggtcctgt
1740
atgggctgcc gcaccaagcc atcgggtagt gcaggcctgg acctgcctcc catcagctgc
1800
tggggcccca gcaattgcct ctgcccttggt ctctgcccct ctgccaaccc atccccacct
1860
cccggctccc atccccagct ccagctcgc tctccccttc ctgggcctct cccagcct
1920
tggtgcagcc tcagccaggg accctcccc agcgacttcc cgcaaggcag ccgctggac
1980
ctcagctct gctgctctgt gtgcgccatg gggctctgct cggggctgga gctgcgtctc
2040
ttcccggggc caggacaagg gcggcctccc cttggcggcg ctggtgctga gttgcttaga
2100
ccagaagact attcagaccg tgagcctgtt tttgatttga gtgttccact aaacaaacaa
2160
caaaagccca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
2220
aaaaaaaaaa aaaaaaaaaa aaaa
2244

<210> 2442

<211> 168
 <212> PRT
 <213> Homo sapiens

<400> 2442
 Met Gly Cys Arg Thr Lys Pro Ser Gly Ser Ala Gly Leu Asp Leu Pro
 1 5 10 15
 Pro Ile Ser Cys Trp Gly Pro Ser Thr Cys Leu Cys Pro Trp Leu Cys
 20 25 30
 Pro Ser Ala Asn Pro Ser Pro Pro Gly Ser His Pro Gln Leu Pro
 35 40 45
 Ala Arg Ser Pro Leu Pro Gly Pro Leu Pro Ser Pro Trp Cys Ser Leu
 50 55 60
 Ser Gln Gly Pro Ser Pro Ser Asp Phe Pro Gln Gly Ser Arg Leu Asp
 65 70 75 80
 Leu Glu Leu Cys Leu Pro Val Cys Ala Met Gly Ser Ala Ser Gly Leu
 85 90 95
 Glu Leu Arg Leu Phe Pro Gly Pro Gly Gln Gly Arg Pro Pro Leu Gly
 100 105 110
 Gly Ala Gly Ala Glu Leu Leu Arg Pro Glu Asp Tyr Ser Asp Arg Glu
 115 120 125
 Pro Val Phe Asp Leu Ser Val Pro Leu Asn Lys Gln Gln Lys Pro Lys
 130 135 140
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 145 150 155 160
 Lys Lys Lys Lys Lys Lys Lys Lys
 165

<210> 2443
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 2443
 nccgtgcgcg ctatcttgcg tcgtacgcgcg tccaggggaag atgaaaaaat gctacaaacg
 60
 gccgatggac gattgcgcat tgatatcgaa tccatgcgca cctttgtaga gggcaaagaa
 120
 gtccatttga cgaaaaacga atttttaatt gtgcagactt tgtttacgca cccaataag
 180
 atctatacgc gcgatgaaat tatcgaagtc accttcggaa tggattatga ggcctttgac
 240
 cgtgccattg ataccatat caaaaacatt cgccagaaga ttgaagcgga tccgaaaaac
 300
 cccgtctata tccgcacggt ttatggtgtc gggatatctgc ccggaggctt tgatgaagct
 360
 t
 361

<210> 2444
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 2444

Xaa Val Arg Ala Ile Leu Arg Arg Thr Pro Ser Arg Glu Asp Glu Lys
 1 5 10 15
 Met Leu Gln Thr Ala Asp Gly Arg Leu Arg Ile Asp Ile Glu Ser Met
 20 25 30
 Arg Thr Phe Val Glu Gly Lys Glu Val His Leu Thr Lys Asn Glu Phe
 35 40 45
 Leu Ile Val Gln Thr Leu Phe Thr His Pro Asn Lys Ile Tyr Thr Arg
 50 55 60
 Asp Glu Ile Ile Glu Val Thr Phe Gly Met Asp Tyr Glu Ala Phe Asp
 65 70 75 80
 Arg Ala Ile Asp Thr His Ile Lys Asn Ile Arg Gln Lys Ile Glu Ala
 85 90 95
 Asp Pro Lys Asn Pro Val Tyr Ile Arg Thr Val Tyr Gly Val Gly Tyr
 100 105 110
 Leu Pro Gly Gly Phe Asp Glu Ala
 115 120

<210> 2445

<211> 403

<212> DNA

<213> Homo sapiens

<400> 2445

agatctgttg aatgaagcag gtgccactta gacattcact tcactgactc caaccacaac
 60
 ccccccttca tttgatatcc tgctcttggc agaaggatgg agaaagagca tcgcacaaag
 120
 aggaagcatg tttatcctgt tcagattact gcttctgcca ggctgctgct gctgttgggt
 180
 tctgcacatt tgctctttat taagcaaagt tcagagctgg gtgctggcaa gggaatcccc
 240
 tgtatttaca caggtaaacc tgagagccag agggcccca accatcctgg ctgcgagggg
 300
 caagctatta gagttaataa cagtgcactg gcattccttc aaaatcctaa tggaagcata
 360
 aataaaaaga ggaaagtccc ctttacccaa gaacctgaaa aan
 403

<210> 2446

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2446

Met Glu Lys Glu His Arg Thr Lys Arg Lys His Val Tyr Pro Val Gln
 1 5 10 15
 Ile Thr Ala Ser Ala Arg Leu Leu Leu Leu Gly Ser Ala His Leu
 20 25 30
 Leu Phe Ile Lys Gln Met Ser Glu Leu Gly Ala Gly Lys Gly Ile Pro
 35 40 45
 Cys Ile Tyr Thr Gly Lys Pro Glu Ser Gln Arg Ala Pro Asn His Pro
 50 55 60
 Gly Cys Glu Gly Gln Ala Ile Arg Val Asn Asn Ser Ala Leu Ala Phe

65 70 75 80
 Leu Gln Asn Pro Asn Gly Ser Ile Asn Lys Lys Arg Lys Val Pro Phe
 85 90 95
 Thr Gln Glu Pro Glu Lys
 100

<210> 2447

<211> 744

<212> DNA

<213> Homo sapiens

<400> 2447

nacgcgtcga ggtttgccag tcacgggttg cgggtggggc aggtactact caccgtcaat
 60
 gacctggtgc ggcccacttc gtaccgcaat gcctggtcaa ccctcgacac tttgctgggg
 120
 ttgggcgctcg tgccgatcgt caacgagaac gacacggtcg ccaccggaga aattcggttt
 180
 ggcgataatg atcggcttgc tgccctggta gccgagctgg tgcgcgctca agccctcatt
 240
 ctgctctctg acgttgacgc cttgtacacc gcccatccgg attcaccgga tgctcgtcgc
 300
 gtggagggttg tggaggacat cgatgcattg gatgtcgata ccataaaagc tggttcgggg
 360
 gtgggaaccg gcggcacatgac cagcaactt gaagccgccc gaatggccac ctgtgccggg
 420
 gtaccggtgg tactcgcagc ggcggtggat gccccggacg ttctggctgg tgccccctg
 480
 ggtacctact tccgcccgtc ggcgacgcga cggccccgac ggttgctgtg gttggccgac
 540
 gctgccaccc cgcagggaca gatcgatcgc gacgacggag ctgtcgaagc tttgacacag
 600
 cgctattcct cgttggttggc ggtgggtgtg actcgggtac acggggattt ccaagcaggc
 660
 gacccagtga cgatcctggc ctccgacggt cgagttgttg gtcgcggtat cgcccagttc
 720
 tcccatgatg aggtgcgcgt catg
 744

<210> 2448

<211> 248

<212> PRT

<213> Homo sapiens

<400> 2448

Xaa Ala Ser Arg Phe Ala Ser His Gly Leu Arg Val Gly Gln Val Leu
 1 5 10 15
 Leu Thr Val Asn Asp Leu Val Arg Pro Thr Ser Tyr Arg Asn Ala Trp
 20 25 30
 Ser Thr Leu Asp Thr Leu Leu Gly Leu Gly Val Val Pro Ile Val Asn
 35 40 45
 Glu Asn Asp Thr Val Ala Thr Gly Glu Ile Arg Phe Gly Asp Asn Asp
 50 55 60
 Arg Leu Ala Ala Leu Val Ala Glu Leu Val Arg Ala Gln Ala Leu Ile

```

65          70          75          80
Leu Leu Ser Asp Val Asp Ala Leu Tyr Thr Ala His Pro Asp Ser Pro
      85          90          95
Asp Ala Arg Arg Val Glu Val Val Glu Asp Ile Asp Ala Leu Asp Val
      100         105         110
Asp Thr His Lys Ala Gly Ser Gly Val Gly Thr Gly Gly Met Thr Thr
      115         120         125
Lys Leu Glu Ala Ala Arg Met Ala Thr Cys Ala Gly Val Pro Val Val
      130         135         140
Leu Ala Ala Ala Val Asp Ala Pro Asp Val Leu Ala Gly Ala Pro Val
      145         150         155         160
Gly Thr Tyr Phe Arg Pro Leu Ala Thr Arg Arg Pro Arg Arg Leu Leu
      165         170         175
Trp Leu Ala Asp Ala Ala Thr Pro Gln Gly Gln Ile Val Ile Asp Asp
      180         185         190
Gly Ala Val Glu Ala Leu Thr Gln Arg His Ser Ser Leu Leu Ala Val
      195         200         205
Gly Val Thr Arg Val His Gly Asp Phe Gln Ala Gly Asp Pro Val Thr
      210         215         220
Ile Leu Ala Ser Asp Gly Arg Val Val Gly Arg Gly Ile Ala Gln Phe
      225         230         235         240
Ser His Asp Glu Val Arg Val Met
      245

```

<210> 2449
 <211> 296
 <212> DNA
 <213> Homo sapiens

```

<400> 2449
gtgcacttttg ttacagccct ggaacatgaa cacatgccgt catcaactcc ccaaaatctc
60
ctactgctct cccctcctcc ctgggccctg tcctatcccc agaggccaga caggccttcc
120
tcgcatgcaa gagtctccct cgccttgccg gacagtggcc tccatctacc tgctgtctt
180
gctggactcc agaacactcc agtcctttcc cccttggggg ttgggggggg ccccccttt
240
ttttcccccc ctttccctct tcattccaca ggaggccagc ctcaacatcc cncccc
296

```

<210> 2450
 <211> 90
 <212> PRT
 <213> Homo sapiens

```

<400> 2450
Met Asn Thr Cys Arg His Gln Leu Pro Lys Ile Ser Tyr Cys Ser Pro
1          5          10         15
Leu Leu Pro Gly Pro Cys Pro Ile Pro Arg Gly Gln Thr Gly Leu Pro
20         25         30
Arg Met Gln Glu Ser Pro Ser Pro Cys Arg Thr Val Ala Ser Ile Tyr
35         40         45
Leu Pro Val Leu Leu Asp Ser Arg Thr Leu Gln Ser Phe Pro Pro Trp

```

50 55 60
 Gly Leu Gly Gly Ala Pro Pro Phe Phe Pro Pro Leu Ser Leu Phe Ile
 65 70 75 80
 Pro Gln Glu Ala Ser Leu Asn Ile Pro Xaa
 85 90

<210> 2451
 <211> 589
 <212> DNA
 <213> Homo sapiens

<400> 2451
 nacgcgtgac tggattgctc aacgggtgag gaatcgagcg gttacgatgt cgggccgac
 60
 tgcaacgatg atcttgtag cgatgtattg accggtgtgt gggccgatct tgtgggcca
 120
 gagaaggctg tcggggctcct ggtcgtgcc gccgaatcgc agccggggcg ctgcgccat
 180acgcattggt cattacgggt ccgcctggat caggtcggtc gaatgctgcg 240
 aaggcctttg cagcggcgct acagtgcgc gaccatggat gcgggcagtg caatgcctgt
 300
 cgaaccngcc tgtcaggcgc ccacccctgac gtcaccctcg tgcgtactga ggcgctgtct
 360
 attggcgctg attgaggtcg tgaaatgggt ttgttcgagc gggcgatgaa ttcgggtccc
 420
 cggggcgctc ccagggttgt cgtcgctgaa gatgccgacc gcatcactga acgcggagct
 480
 gacgccttgc ttaaagctat cgaggagcct gcgccgaaaa ccgtctggtt gctgtgtgcc
 540
 cctactccag aggacgtcat cgtcacgac aggtcgagat gtcggcgcc
 589

<210> 2452
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 2452
 Leu Asp Cys Ser Thr Gly Glu Glu Ser Ser Gly Tyr Asp Val Gly Pro
 1 5 10 15
 Ile Cys Asn Asp Asp Leu Val Ser Asp Val Leu Thr Gly Val Trp Ala
 20 25 30
 Asp Leu Val Gly Gln Glu Lys Ala Val Gly Val Leu Arg Arg Ala Ala
 35 40 45
 Glu Ser Gln Pro Gly Arg Ser Ser His Ala Met Ser His Ala Trp Leu
 50 55 60
 Ile Thr Gly Pro Pro Gly Ser Gly Arg Ser Asn Ala Ala Lys Ala Phe
 65 70 75 80
 Ala Ala Ala Leu Gln Cys Val Asp His Gly Cys Gly Gln Cys Asn Ala
 85 90 95
 Cys Arg Thr Xaa Leu Ser Gly Ala His Pro Asp Val Thr Leu Val Arg
 100 105 110
 Thr Glu Ala Leu Ser Ile Gly Val Asp
 115 120

<210> 2453
 <211> 695
 <212> DNA
 <213> Homo sapiens

<400> 2453
 nnacgcgtca gccatctgtg agtgctcaca ctatacacac atccccgggc aactcaggg
 60
 agattcacac attcctacga gcacacatgt gcctgcatga gttattcccc atgtgaacac
 120
 acaggttggc acacgcacat gcccctgggt atgctcatgt ccattcatcc atcccagcct
 180
 gtgcacgtcc tctcactcct gtgttcacac ctatgcccaa atgaaccaag ggacacacat
 240
 gcacaccctt atgtggtgca cacacactcg tgcacacgga gccacaccag cacatgctca
 300
 gaggcatttg tgtgcgtggg catttgcagc atgactcaga acggagtatg ggggtggcgcg
 360
 gcgtggctgg ggaggtccca tcagcccgcg tctgaaaccc tcccaacctg cccatcctgg
 420
 cccaggcact gtgtctccgg cttgggcttc agccccggac cccaggacac cccggacaaa
 480
 gaggagctgc tctcgtctga agcctgctac gaatgcagga tcaatggcct ctccccctgg
 540
 gaccggccac gacgcagtgc ccacagggac caccaggtga catgggtgct gcactaggca
 600
 ggggtggcca ggggaatgggt gagtgtggga aagaggctgt ggacccgact tagtcatgtc
 660
 agccccccga agaaggagca ccaggctcca gatct
 695

<210> 2454
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 2454
 Met Ser Tyr Ser Pro Cys Glu His Thr Gly Trp His Thr His Met Pro
 1 5 10 15
 Leu Gly Met Leu Met Ser Ile His Pro Ser Gln Pro Val His Val Leu
 20 25 30
 Ser Leu Leu Cys Ser His Leu Cys Pro Asn Glu Pro Arg Asp Thr His
 35 40 45
 Ala His Pro Tyr Val Val His Thr His Ser Cys Thr Arg Ser His Thr
 50 55 60
 Ser Thr Cys Ser Glu Ala Phe Val Cys Val Gly Ile Cys Ser Met Thr
 65 70 75 80
 Gln Asn Gly Val Trp Gly Gly Ala Ala Trp Leu Gly Arg Ser His Gln
 85 90 95
 Pro Ala Ser Glu Thr Leu Pro Thr Cys Pro Ser Trp Pro Arg His Cys
 100 105 110
 Val Ser Gly Leu Gly Phe Ser Pro Gly Pro Gln Asp Thr Pro Asp Lys
 115 120 125
 Glu Glu Leu Leu Ser Ser Glu Ala Cys Tyr Glu Cys Arg Ile Asn Gly

130	135	140
Leu Ser Pro Arg Asp Arg	Pro Arg Arg Ser Ala	His Arg Asp His Gln
145	150	155
Val Thr Trp Val Leu His		160
	165	

<210> 2455
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2455
 acgcgtcggc agaagcgtca gctgaccgtc ggagccgata tgtccccagg cgtcgtcagc
 60
 ggaaccgcgc agaaggaaat ccacgcgctg ccgatcatga aggcgctccc catgggcgtc
 120
 aaagaactcg ttctgggcga atcgaagtgg caggacgagt tgatcaacaa cttcatcgtc
 180
 gcgtgttttg caggcgtggg gttgctgttc gcggtgctgg tgctgctgta ccggcgcttg
 240
 ctgccgcgtt tcatcaacgt gatgtcgtg gcggtggcac cgctgggcgg gttgatcggc
 300
 ctgtggctga ccaacacgcc gatctcgatg ccggtctata tcggcttgat catgctgctc
 360
 ggcacgtcgc ccaagaat
 378

<210> 2456
 <211> 126
 <212> PRT
 <213> Homo sapiens

Thr Arg Arg Gln Lys Arg Gln Leu Thr Val Gly Ala Asp Leu Ser Pro	
1	15
Gly Val Val Ser Gly Thr Ala Gln Lys Glu Ile His Ala Leu Pro Ile	
20	30
Met Lys Ala Leu Pro Met Gly Val Lys Glu Leu Val Leu Gly Glu Ser	
35	45
Lys Trp Gln Asp Glu Leu Ile Asn Asn Phe Ile Val Ala Leu Phe Ala	
50	60
Gly Val Val Leu Leu Phe Ala Val Leu Val Leu Tyr Arg Arg Leu	
65	80
Leu Pro Pro Phe Ile Asn Val Met Ser Leu Ala Val Ala Pro Leu Gly	
85	95
Gly Leu Ile Gly Leu Trp Leu Thr Asn Thr Pro Ile Ser Met Pro Val	
100	110
Tyr Ile Gly Leu Ile Met Leu Leu Gly Ile Val Ala Lys Asn	
115	125

<210> 2457
 <211> 754
 <212> DNA
 <213> Homo sapiens

<400> 2457

cctaggaatt taccaccatc aaagacttac attaaccagc tatccatgaa ctcacctgag
 60
 atgagcgaat gtgacatctt gcacactctg cgatggtctt ctcggtccg gatcagctcc
 120
 tatgtcaact ggataaagga tcaccttata aaacagggaa tgaaggctga gcatgctagc
 180
 tcgcttctag aactggcatc caccactaag tgtagctcag tgaaatatga tgttgaaata
 240
 gtagaggaat acttcgctcg acagatctca tccttctgta gtatcgactg tgccaccatc
 300
 ttgcagctgc atgaaattcc cagtctgcag tccatctaca cccttgatgc cgcgattcta
 360
 aaaggcccag gtcttttttg gatgagcatt tttctaagat ggctgctgag actgatcctc
 420
 ataagtcgtc tgagattacc aagaacctac ttccagccac gctgcaactc attgacacct
 480
 atgcatcggt caccagagcc tatttgctgc aaaactttaa tgaagagggga acaactgaga
 540
 aaccttccaa ggagaaactg caaggctttg ctgctgtttt ggctattggc tctagcaggt
 600
 gcaaggcaaa tactctgggt ccgacactgg ttcagaattt gccatcgta gtgcagactg
 660
 tgtgtgagtc ctggaacaac atcaatacca atgaatttcc caatattgga tcctggcgca
 720
 atgcctttgc caatgacacc atcccttcac gcgt
 754

<210> 2458

<211> 236

<212> PRT

<213> Homo sapiens

<400> 2458

Met	Asn	Ser	Pro	Glu	Met	Ser	Glu	Cys	Asp	Ile	Leu	His	Thr	Leu	Arg
1				5					10					15	
Trp	Ser	Ser	Arg	Leu	Arg	Ile	Ser	Ser	Tyr	Val	Asn	Trp	Ile	Lys	Asp
			20					25					30		
His	Leu	Ile	Lys	Gln	Gly	Met	Lys	Ala	Glu	His	Ala	Ser	Ser	Leu	Leu
		35					40					45			
Glu	Leu	Ala	Ser	Thr	Thr	Lys	Cys	Ser	Ser	Val	Lys	Tyr	Asp	Val	Glu
	50					55				60					
Ile	Val	Glu	Glu	Tyr	Phe	Ala	Arg	Gln	Ile	Ser	Ser	Phe	Cys	Ser	Ile
65				70					75					80	
Asp	Cys	Ala	Thr	Ile	Leu	Gln	Leu	His	Glu	Ile	Pro	Ser	Leu	Gln	Ser
			85					90					95		
Ile	Tyr	Thr	Leu	Asp	Ala	Ala	Ile	Leu	Lys	Gly	Pro	Gly	Leu	Phe	Gly
		100					105					110			
Met	Ser	Ile	Phe	Leu	Arg	Trp	Leu	Leu	Arg	Leu	Ile	Leu	Ile	Ser	Arg
		115					120				125				
Leu	Arg	Leu	Pro	Arg	Thr	Tyr	Phe	Gln	Pro	Arg	Cys	Asn	Ser	Leu	Thr
	130				135					140					
Pro	Met	His	Arg	Ser	Pro	Glu	Pro	Ile	Cys	Cys	Lys	Thr	Leu	Met	Lys

145		150		155		160									
Arg	Glu	Gln	Leu	Arg	Asn	Leu	Pro	Arg	Arg	Asn	Cys	Lys	Ala	Leu	Leu
			165					170						175	
Leu	Phe	Trp	Leu	Leu	Ala	Leu	Ala	Gly	Ala	Arg	Gln	Ile	Leu	Trp	Val
			180					185					190		
Arg	His	Trp	Phe	Arg	Ile	Cys	His	Arg	Gln	Cys	Arg	Leu	Cys	Val	Ser
		195						200				205			
Pro	Gly	Thr	Thr	Ser	Ile	Pro	Met	Asn	Phe	Pro	Ile	Leu	Asp	Pro	Gly
	210					215					220				
Ala	Met	Pro	Leu	Pro	Met	Thr	Pro	Ser	Leu	His	Ala				
225					230						235				

<210> 2459

<211> 382

<212> DNA

<213> Homo sapiens

<400> 2459

accggtgcac agatcgttct ggccgcgtgc actgccccgc tcaagcaaat cgctatcaac
60

gctggtcttg agggcggcgt cgtggctgag aaggctcgtg gtctgccccg aggacagggc
120

ctcaacgcgg ccaatgacga gtatgtcgac atggttagagg ccggcatcat tgaccgggcc
180

aaggtagacc gttcggctct gcagaacgcc gcgtccatcg cggccctgtt cctcaccact
240

gaagccgtca tcgctgacaa gcccagacct gttaaggctc ccgctggcgg cggatgatatg
300

gacggtatgg gtggcatggg cggcatgatg tgatcgtgta ttgccttcgc tgatttgagt
360

gggatgccac tttgccccag gc
382

<210> 2460

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2460

Thr	Gly	Ala	Gln	Ile	Val	Leu	Ala	Ala	Cys	Thr	Ala	Pro	Leu	Lys	Gln
1				5					10					15	

Ile	Ala	Ile	Asn	Ala	Gly	Leu	Glu	Gly	Gly	Val	Val	Ala	Glu	Lys	Val
			20					25					30		

Ala	Gly	Leu	Pro	Ala	Gly	Gln	Gly	Leu	Asn	Ala	Ala	Asn	Asp	Glu	Tyr
		35				40						45			

Val	Asp	Met	Val	Glu	Ala	Gly	Ile	Ile	Asp	Pro	Ala	Lys	Val	Thr	Arg
	50					55				60					

Ser	Ala	Leu	Gln	Asn	Ala	Ala	Ser	Ile	Ala	Ala	Leu	Phe	Leu	Thr	Thr
	65				70				75					80	

Glu	Ala	Val	Ile	Ala	Asp	Lys	Pro	Glu	Pro	Val	Lys	Ala	Pro	Ala	Gly
				85				90					95		

Gly	Gly	Asp	Met	Asp	Gly	Met	Gly	Gly	Met	Gly	Gly	Met	Met		
			100				105						110		

<210> 2461
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 2461
 tccggacaaa agggttcaat cgaagtatgg ttagcctttt ccaagtcgcc aggacggacc
 60
 tgcaatgctg tttgtcgtea tgctcggggg caagcaccca cgggctaaaa tcgaaattca
 120
 cgatgtggta ttgcagtcg cggatacgt gcaacacacc tacaccaat tgcgcgacgg
 180
 ctggttcggc agccctaagg tgtgcatatc gatgctgga tggccgtcga tggcgtcgac
 240
 ggctggaaaag tcgaactcag ccagatggcg ccgcctgccg acgcgcatca cctgtacttc
 300
 atcaacctcg gcggctacga ggccaacgct tttggcgagg cccatcatta cctgctgggtg
 360
 gtcgcccggg acaaacagga agccaagcgc aaggggagc ggcaaatgtt gcaacactgg
 420
 tcccaggccc acaccgatgg cgtaatggat atcgacgact gcttgccgat tgatctgggtg
 480
 gacggtcgct atgttcacct ggtgcaaggc ccgcaccagc cgatcatcca gcacaacgac
 540
 tacatcatcc tgccgcga
 558

<210> 2462
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 2462
 Met Val Ser Leu Phe Gln Val Ala Arg Thr Asp Leu Gln Cys Cys Leu
 1 5 10 15
 Ser Ser Cys Ser Gly Ala Ser Thr His Gly Leu Lys Ser Lys Phe Thr
 20 25 30
 Met Trp Tyr Ser Gln Ser Arg Ile Arg Cys Asn Thr Pro Thr Pro Asn
 35 40 45
 Cys Ala Thr Ala Gly Ser Ala Ala Leu Arg Cys Ala Tyr Arg Cys Val
 50 55 60
 Asp Gly Arg Arg Trp Arg Arg Arg Leu Glu Ser Arg Thr Gln Pro Asp
 65 70 75 80
 Gly Ala Ala Cys Arg Arg Ala Ser Pro Val Leu His Gln Pro Arg Arg
 85 90 95
 Leu Arg Gly Gln Arg Phe Trp Arg Gly Pro Ser Leu Pro Ala Gly Gly
 100 105 110
 Arg Pro Gly Gln Thr Gly Ser Gln Ala Gln Gly Ala Ala Asn Val
 115 120 125
 Ala Thr Leu Val Pro Gly Pro His Arg Trp Arg Asn Gly Tyr Arg Arg
 130 135 140
 Leu Leu Ala Asp
 145

<210> 2463
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 2463
 cccagggggt aagccatgag cctgttgagc caagtggccc gggcgccggt gagcgccaag
 60
 ttccggcctgc tgattattct gttatacgtc gcgctggcgc tgtgngcgcc gctgctggcg
 120
 ccctatggcg aaaccaggt ggtgggtgaa ggcttcgcgc cgtggagcgg ccagtttttg
 180
 ctgggcaccg ataacctggg gcgcgacatg ttcagccgcc tgatgtacgg cgcgcgaat
 240
 accttgggca ttgccttcct gacgacgacg ctggcggttc tgctcggtgg tttgagcggt
 300
 ttggtcgcg cgatcaagg cygttgggtc gac
 333

<210> 2464
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2464
 Met Ser Leu Leu Ser Gln Val Ala Arg Ala Pro Leu Ser Ala Lys Phe
 1 5 10 15
 Gly Leu Leu Ile Ile Leu Leu Tyr Val Ala Leu Ala Leu Xaa Ala Pro
 20 25 30
 Leu Leu Ala Pro Tyr Gly Glu Thr Gln Val Val Gly Glu Gly Phe Ala
 35 40 45
 Pro Trp Ser Gly Gln Phe Leu Leu Gly Thr Asp Asn Leu Gly Arg Asp
 50 55 60
 Met Phe Ser Arg Leu Met Tyr Gly Ala Arg Asn Thr Leu Gly Ile Ala
 65 70 75 80
 Phe Leu Thr Thr Thr Leu Ala Phe Leu Leu Gly Gly Leu Ser Gly Leu
 85 90 95
 Val Ala Ala Ile Lys Gly Gly Trp Val Asp
 100 105

<210> 2465
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 2465
 nntcatgagg acatttcct catatttgggt ggtggtaa at ccctcctggg acacggggaa
 60
 atgaccagag gctggcgcc cacctggcag gaacagatgc cagctctgct gcagccatcg
 120
 cccttgagc ggggtggctct gtgcctcttt ctgcactgct ggtgggtggt gctgttggt
 180
 gggatgatga taccggctgc cagagatggc tcaggtgcca gctgctgggc tatctcaggc
 240

actggctgct gggctatctc ggggtgccggc tgctgggcta tctcaggcgc tggctgctgc
 300
 tgggctgtct cgggtgctgg ctgttgggac gtctcctgtc ctggcactgg gctctcgggt
 360
 gctgggtgcc agctgctgcc taccttgcaac tgggctctgg gcactcactg cactcgggct
 420
 tttccatctc cgac
 434

<210> 2466

<211> 82

<212> PRT

<213> Homo sapiens

<400> 2466

Trp	Ile	Pro	Ala	Ala	Arg	Asp	Gly	Ser	Gly	Ala	Ser	Cys	Trp	Ala	Ile
1				5					10					15	
Ser	Gly	Thr	Gly	Cys	Trp	Ala	Ile	Ser	Gly	Ala	Gly	Cys	Trp	Ala	Ile
			20					25					30		
Ser	Gly	Ala	Gly	Cys	Cys	Trp	Ala	Val	Ser	Gly	Ala	Gly	Cys	Trp	Asp
			35				40					45			
Val	Ser	Cys	Pro	Gly	Thr	Gly	Leu	Ser	Gly	Ala	Gly	Cys	Gln	Leu	Leu
	50					55					60				
Pro	Thr	Leu	His	Trp	Ala	Leu	Gly	Thr	His	Cys	Thr	Arg	Ala	Phe	Pro
65					70					75				80	
Ser	Pro														

<210> 2467

<211> 306

<212> DNA

<213> Homo sapiens

<400> 2467

atggactcca ccggcaccgg agcaggggggt aaggggaaga agggagcggc cgggcgcaag
 60
 gtcggcgggc caaggaagaa gtcggtgtcg aggtccgtga aggccggtct ccagttcccc
 120
 gtcggccgca tcgggcgcta cttgaagaag ggccgctacg cgcagcgtgt cggcaccggc
 180
 gccccgtct acctcgccgc tgctctcgaa tacctcgccg ctgaggttct ggagctcgcc
 240
 ggtaatgctg ccagggacaa caagaagact cgcattattc cgcgccacgt gcttctggcg
 300
 atccgg
 306

<210> 2468

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2468

Met Asp Ser Thr Gly Thr Gly Ala Gly Gly Lys Gly Lys Lys Gly Ala

```

1           5           10           15
Ala Gly Arg Lys Val Gly Gly Pro Arg Lys Lys Ser Val Ser Arg Ser
20           25           30
Val Lys Ala Gly Leu Gln Phe Pro Val Gly Arg Ile Gly Arg Tyr Leu
35           40           45
Lys Lys Gly Arg Tyr Ala Gln Arg Val Gly Thr Gly Ala Pro Val Tyr
50           55           60
Leu Ala Ala Val Leu Glu Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala
65           70           75           80
Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His
85           90           95
Val Leu Leu Ala Ile Arg
100

```

<210> 2469

<211> 489

<212> DNA

<213> Homo sapiens

<400> 2469

```

gccggcgctgg cacatggctt ccctgaagcc agcattgccc tggccaagga agctttgcag
60
aacagatgag atttcagctg ggacttgag ccaagtggga tttggccttt tggggagaag
120
ggaaagggca ttcaaaggcc agggacagag tatgggtcaaa ggcatggaga tgaggaagag
180
gggaccagag cagaggggtca ggttggaag cgagttgggg tcaatctgca aaggggctga
240
cgtgccaggt aaaaaacagg agcacagttt agttttgtcg gatcatttca ggtggaaggg
300
cagtgggaat gttggagaaa acactttttg gtgtcggtac attgaatctg ctcatctata
360
agaataaaac tttatttcat agagttattg tatgggtcaa aataggtatg aagaattaag
420
aaaaagaatt ttagatttaa aatgaaaagg cacctacaaa agtagagtgg tagagttacc
480
aacgtggag
489

```

<210> 2470

<211> 115

<212> PRT

<213> Homo sapiens

<400> 2470

```

Met Ala Ser Leu Lys Pro Ala Leu Pro Trp Pro Arg Lys Leu Cys Arg
1           5           10           15
Thr Asp Glu Ile Ser Ala Gly Thr Cys Ser Gln Val Gly Phe Gly Leu
20           25           30
Leu Gly Arg Arg Glu Arg Ala Phe Lys Gly Gln Gly Gln Ser Met Val
35           40           45
Lys Gly Met Glu Met Arg Lys Arg Gly Pro Glu Gln Arg Val Arg Leu
50           55           60
Glu Ser Glu Leu Gly Ser Ile Cys Lys Gly Ala Asp Val Pro Gly Lys

```

```

65              70              75              80
Lys Gln Glu His Ser Leu Val Leu Ser Asp His Phe Arg Trp Lys Gly
              85              90              95
Ser Gly Asn Val Gly Glu Asn Thr Phe Trp Cys Arg Tyr Ile Glu Ser
              100              105              110
Ala His Leu
              115

```

<210> 2471
 <211> 779
 <212> DNA
 <213> Homo sapiens

```

<400> 2471
tggccatcct ccgtgacatg tacacttcca atatgccggt gtttgagccg ttcataagatc
60
ctcacatggg ggccttggac ttctttcaca gtgaggacct ctgcttcatg aggctcataa
120
gaagaggagc taaggactat ttgtgcatgg gggcgccaat ccactgcatc ttctactata
180
attctctcat ttctgaggc aatatcagct ccaagatgtg tccaggagtt cttaggataa
240
gcactgtaaa gatgaacttt ccataaacc ccaattgttc ctgggtcaat atgaattcca
300
ttcatacggg cacaaaagac tccctctgag gctctaagga gaatcagaag cttttgttcc
360
ttttctaagg gattttctaa agtaccaact ttcagctccc cgctgcaat gaccatgcat
420
gccacactca gaacattgct tctgtccaca ggggaagtcta aggtcccat cacatacagc
480
cctttgaaga attggaaaat ctgtatccac aaggacagtt ctggtgggta aaatgagaac
540
gtcatcccca gggcctggaa tggattgtt gtatcctccc cagccttctt caacaccttg
600
ccatgtttca gggagggacc attttaaagc tgattcaggg gcagaggtag aagctgaaat
660
agttgggggc ataccttctt tcacccggag aatgacttga acttggcctt cacctaaaac
720
cagatagggtg agttgcctca gctggctatt gaagaaccag tcacagcctt ggttctggc
779

```

<210> 2472
 <211> 181
 <212> PRT
 <213> Homo sapiens

```

<400> 2472
Met Thr Phe Ser Phe Tyr Pro Thr Glu Leu Ser Leu Trp Ile Gln Ile
1              5              10              15
Phe Gln Phe Phe Lys Gly Leu Tyr Val Met Gly Thr Leu Asp Phe Pro
20              25              30
Val Asp Arg Ser Asn Val Leu Ser Val Ala Cys Met Val Ile Ala Gly
35              40              45
Gly Glu Leu Lys Val Gly Thr Leu Glu Asn Pro Leu Glu Lys Glu Gln

```

50	55	60
Lys Leu Leu Ile Leu Leu Arg Ala Ser Glu Gly Val Phe Cys Asp Arg		
65	70	75
Met Asn Gly Ile His Ile Asp Pro Gly Thr Ile Gly Val Tyr Gly Lys		80
	85	90
Val His Leu Tyr Ser Ala Tyr Pro Lys Asn Ser Trp Thr His Leu Gly		95
	100	105
Ala Asp Ile Ala Ser Gly Asn Glu Arg Ile Ile Val Glu Asp Ala Val		110
	115	120
Asp Trp Arg Pro His Asp Lys Ile Val Leu Ser Ser Ser Tyr Glu		125
	130	135
Pro His Glu Ala Glu Val Leu Thr Val Lys Glu Val Lys Gly His His		140
	145	150
Val Arg Ile Tyr Glu Arg Leu Lys His Arg His Ile Gly Ser Val His		155
	160	165
Val Thr Glu Asp Gly		170
	175	
	180	

<210> 2473

<211> 698

<212> DNA

<213> Homo sapiens

<400> 2473

```

nngtgcacca agaaatggca gcctgacaag ctggtggtgg tatggactcg gcggaaccga
60
cgcattctgct ccaaggccca cagctggcag ccgnnggcat ccagaacca taccggggca
120
ccgtggtgtg gatggtacnc tgagaatgtg gacattctctg tgaccctcta cagggacccc
180
cacgtggacc agtatgagga caaagagtgg acatttatta ttgaaaatga gtctaagggg
240
cagcgggaagg tgctggccac ggccgaggtg gacctggccc gccatgccag ggcccgtgcc
300
ntgtccaagt ccnactgag gctgcggctg aagccaaagt cagtgaagac ggtgcaggct
360
gagctgagcc tcactctttc cggggtgctg ctgcgggagg gccgtgccac ggacgatgac
420
atgcagagtc tcgcaagcct catgagtgtg aagcctagt atgtgggcaa cttggatgac
480
tttgctgaga gtgatgaaga tgaggctcat ggcccaggag ccccgagggc ccgggctcga
540
gtcccccagc caggtgggct cacagcctgc tgtggatcga gactgccaag acctggggag
600
ggagggttac ccgggccacc agccacttgc tgtgcccgcc ctgtgatggg aactcattac
660
tgcccaggca gtcccaacca acccagcagc ctcaattg
698

```

<210> 2474

<211> 232

<212> PRT

<213> Homo sapiens

<400> 2474

Xaa Cys Thr Lys Lys Trp Gln Pro Asp Lys Leu Val Val Val Trp Thr
 1 5 10 15
 Arg Arg Asn Arg Arg Ile Cys Ser Lys Ala His Ser Trp Gln Pro Xaa
 20 25 30
 Ala Ser Arg Thr His Thr Gly Ala Pro Trp Cys Gly Trp Tyr Xaa Glu
 35 40 45
 Asn Val Asp Ile Ser Val Thr Leu Tyr Arg Asp Pro His Val Asp Gln
 50 55 60
 Tyr Glu Ala Lys Glu Trp Thr Phe Ile Ile Glu Asn Glu Ser Lys Gly
 65 70 75 80
 Gln Arg Lys Val Leu Ala Thr Ala Glu Val Asp Leu Ala Arg His Ala
 85 90 95
 Arg Ala Arg Ala Xaa Ser Lys Ser Xaa Leu Arg Leu Arg Leu Lys Pro
 100 105 110
 Lys Ser Val Lys Thr Val Gln Ala Glu Leu Ser Leu Thr Leu Ser Gly
 115 120 125
 Val Leu Leu Arg Glu Gly Arg Ala Thr Asp Asp Asp Met Gln Ser Leu
 130 135 140
 Ala Ser Leu Met Ser Val Lys Pro Ser Asp Val Gly Asn Leu Asp Asp
 145 150 155 160
 Phe Ala Glu Ser Asp Glu Asp Glu Ala His Gly Pro Gly Ala Pro Glu
 165 170 175
 Ala Arg Ala Arg Val Pro Gln Pro Gly Gly Leu Thr Ala Cys Cys Gly
 180 185 190
 Ser Arg Leu Pro Arg Pro Gly Glu Gly Gly Leu Pro Gly Pro Pro Ala
 195 200 205
 Thr Cys Cys Ala Arg Pro Val Met Gly Thr His Tyr Cys Pro Gly Ser
 210 215 220
 Pro Asn Gln Pro Ser Ser Leu Asn
 225 230

<210> 2475

<211> 1251

<212> DNA

<213> Homo sapiens

<400> 2475

ngcgcgcccc agatgcaggt gagcaagagg atgctggcgg ggggcgtgag gagcatgccc
 60
 agccccctcc tggcctgctg gcagcccatc ctctgctgg tgctgggctc agtgcgtgca
 120
 ggctcggccca cgggctgccc gcccgcgtgc gactgctccg cccaggaccg cgctgtgctg
 180
 tgccaccgca agcgctttgt ggcagtcctc gagggcatcc ccaccgagac gcgcctgctg
 240
 gacctaggca agaaccgcat caaaacgctc aaccaggacg agttcgccag cttcccgcac
 300
 ctggaggagc tggagctcaa cgagaacatc gtgagcgccg tggagcccgg cgccttcaac
 360
 aacctcttca acctccggac gctgggtctc cgcagcaacc gcctgaagct catcccgcga
 420
 ggcgctttca ctggcctcag caacctgacc aagctggaca tcagcgagaa caagatcggt
 480

atcctactgg actacatgtt tcaggacctg tacaacctca agtcactgga gggtggcgac
 540
 aatgacctcg tctacatctc tcaccgcgcc ttcagcggcc tcaacagcct ggagcagctg
 600
 acgctggaga aatgcaacct gacctccatc cccaccgagg cgctgtccca cctgcacggc
 660
 ctcatcggtc tgaggctccg gcacctcaac atcaatgcca tccgggacta ctccttcaag
 720
 aggctgtacc gactcaaggt cttggagatc tcccactggc cctacttgga caccatgaca
 780
 cccaactgcc tctacggcct caacctgacg tccctgtcca tcacacactg caatctgacc
 840
 gctgtgccct acctggccgt ccgccaccta gtctatctcc gcttctctaa cctctcctac
 900
 aaccccatca gcaccattga gggctccatg ttgcatgagc tgctccggct gcaggagatc
 960
 cagctgggtgg gcgggcagct ggcgggtgg agccctgcct tccgcggcct caactacctg
 1020
 cgcgtgctca atgtctctgg caaccagctg accacactgg aggaatcagt cttccactcg
 1080
 gtgggcaacc tggagacact catcctggac tccaaccgcg tggcctgcga ctgtcggctc
 1140
 ctgtgggtgt tccggcgccg tggcctacaa acttcaaccg gcagcagccc acgtgcgcca
 1200
 cgcccgagtt tgtccagggg caaggagttc aaggacttcc ctgatgtgct a
 1251

<210> 2476

<211> 417

<212> PRT

<213> Homo sapiens

<400> 2476

Xaa	Ala	Pro	Glu	Met	Gln	Val	Ser	Lys	Arg	Met	Leu	Ala	Gly	Gly	Val
1				5					10					15	
Arg	Ser	Met	Pro	Ser	Pro	Leu	Leu	Ala	Cys	Trp	Gln	Pro	Ile	Leu	Leu
			20					25					30		
Leu	Val	Leu	Gly	Ser	Val	Leu	Ser	Gly	Ser	Ala	Thr	Gly	Cys	Pro	Pro
		35					40					45			
Arg	Cys	Glu	Cys	Ser	Ala	Gln	Asp	Arg	Ala	Val	Leu	Cys	His	Arg	Lys
	50					55				60					
Arg	Phe	Val	Ala	Val	Pro	Glu	Gly	Ile	Pro	Thr	Glu	Thr	Arg	Leu	Leu
65					70					75				80	
Asp	Leu	Gly	Lys	Asn	Arg	Ile	Lys	Thr	Leu	Asn	Gln	Asp	Glu	Phe	Ala
			85						90					95	
Ser	Phe	Pro	His	Leu	Glu	Glu	Leu	Glu	Leu	Asn	Glu	Asn	Ile	Val	Ser
		100						105					110		
Ala	Val	Glu	Pro	Gly	Ala	Phe	Asn	Asn	Leu	Phe	Asn	Leu	Arg	Thr	Leu
		115					120					125			
Gly	Leu	Arg	Ser	Asn	Arg	Leu	Lys	Leu	Ile	Pro	Leu	Gly	Val	Phe	Thr
		130				135					140				
Gly	Leu	Ser	Asn	Leu	Thr	Lys	Leu	Asp	Ile	Ser	Glu	Asn	Lys	Ile	Val
145				150					155					160	
Ile	Leu	Leu	Asp	Tyr	Met	Phe	Gln	Asp	Leu	Tyr	Asn	Leu	Lys	Ser	Leu

[illegible]

```
<210> 2477
<211> 548
<212> DNA
<213> Homo sapiens
```

```
<400> 2477
nagactgcga tcagacgcgc gtgccagct gaaccaggtg cgtgagaagg ctgccttcag
60
gtggccgggg. gctccctcca gctgtctctg gacggaggga cgggaagtgg ccagaagggg
120
aagtgtgagg agttcccgtc cagcctgtca tcagtctccc caggtcttga agcggcgggc
180
ctgtcctctg ccgtgaccat ggaccctctg gagacccta tcaaggatgg catcctctac
240
cagcagcatg tcaagtttgg caagaagtgc tggcggaagg tgtgggctct gctgtatgca
300
ggaggcccat caggcgtggc acggctggag aactgggagg tccgggatgg tggcctggga
360
gcagcgggtg acaggtcggc ggggcctggc cggcgagggg agcgacgggt catccgcctg
420
```

gctgactgtg tgtccgtgct gccggctgac ggcgagagct gcccccgga caccggtgcc
 480
 ttcctgctca ccaccaccga gcgaagccat ctactggctg ctcagcaccg ccaggcctgg
 540
 atgggccc
 548

<210> 2478<211> 113

<212> PRT

<213> Homo sapiens

<400> 2478

Leu	Glu	Thr	Pro	Ile	Lys	Asp	Gly	Ile	Leu	Tyr	Gln	Gln	His	Val	Lys
1				5				10						15	
Phe	Gly	Lys	Lys	Cys	Trp	Arg	Lys	Val	Trp	Ala	Leu	Leu	Tyr	Ala	Gly
		20					25					30			
Gly	Pro	Ser	Gly	Val	Ala	Arg	Leu	Glu	Asn	Trp	Glu	Val	Arg	Asp	Gly
	35					40					45				
Gly	Leu	Gly	Ala	Ala	Gly	Asp	Arg	Ser	Ala	Gly	Pro	Gly	Arg	Arg	Gly
	50				55					60					
Glu	Arg	Arg	Val	Ile	Arg	Leu	Ala	Asp	Cys	Val	Ser	Val	Leu	Pro	Ala
65				70				75						80	
Asp	Gly	Glu	Ser	Cys	Pro	Arg	Asp	Thr	Gly	Ala	Phe	Leu	Leu	Thr	Thr
			85				90						95		
Thr	Glu	Arg	Ser	His	Leu	Leu	Ala	Ala	Gln	His	Arg	Gln	Ala	Trp	Met
			100				105						110		

Gly

<210> 2479

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2479

gaattcatgg aggtctatga ggaggatgaa gaatatgctg atgaaaaata tgaaacccat
 60
 ttcggcacga gctggatgga ggagaccgca ggcaccttct cactgaactg gtatcgcagc
 120
 aggtactgga atgacaatga agcagcagaa aggcttgctg tgatgtgggc taaaaccttc
 180
 aaatatgctg cgataaacgt ctctggcag accgggatta gcaatagcga cgacgagggc
 240
 aatgaagatg aagacatggt ctacgccggt atctccattc cgctgggagg cggggcgtag
 300
 tctaactcct ggtatcgtga atat
 324

<210> 2480

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2480

Glu Phe Met Glu Val Tyr Glu Glu Asp Glu Glu Tyr Ala Tyr Glu Lys
 1 5 10 15
 Tyr Glu Thr His Phe Gly Thr Ser Trp Met Glu Glu Thr Ala Gly Thr
 20 25 30
 Phe Ser Leu Asn Trp Tyr Arg Ser Arg Tyr Trp Asn Asp Asn Glu Ala
 35 40 45
 Ala Glu Arg Leu Ala Leu Met Trp Ala Lys Thr Phe Lys Tyr Ala Ser
 50 55 60
 Ile Asn Val Ser Trp Gln Thr Gly Ile Ser Asn Ser Asp Asp Glu Gly
 65 70 75 80
 Asn Glu Asp Glu Asp Met Phe Tyr Ala Gly Ile Ser Ile Pro Leu Gly
 85 90 95
 Gly Gly Ala Tyr Ser Asn Ser Trp Tyr Arg Glu Tyr
 100 105

<210> 2481

<211> 484

<212> DNA

<213> Homo sapiens

<400> 2481

gcgttcacta acgcttcaac aaactcttac aagcgtcttg ttcttggttt cgaagcacct
 60
 gttatgttgg cttactcagc tcgtaaccgt tctgcttcta tccgtatccc atacgttgca
 120
 agccctaaag gcaagcgtat tgaagctcgt ttccctgata caaccgctaa cccataccta
 180
 gcatttttcag ctatgttgat ggctgggtatc gatgggtatca aaaacaagat tcaccctggc
 240
 gatgcagcag acaaagattt gtacgacctt ccagctgaag aagcagccgc tatccctcaa
 300
 gttgctagca gcttagaaga agcgtttaag tgcctagatc aagaccgtga gttcttgact
 360
 caaggtggcg ttttctctga cgacatgata gatgcttaca tcgctcttaa agcagaagaa
 420
 gcacagcgtg ttgcaatgac aacaacacca cttgagttcg aactttacta cagcctataa
 480
 gctt
 484

<210> 2482

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2482

Ala Phe Thr Asn Ala Ser Thr Asn Ser Tyr Lys Arg Leu Val Pro Gly
 1 5 10 15
 Phe Glu Ala Pro Val Met Leu Ala Tyr Ser Ala Arg Asn Arg Ser Ala
 20 25 30
 Ser Ile Arg Ile Pro Tyr Val Ala Ser Pro Lys Gly Lys Arg Ile Glu
 35 40 45
 Ala Arg Phe Pro Asp Pro Thr Ala Asn Pro Tyr Leu Ala Phe Ser Ala
 50 55 60

Met Leu Met Ala Gly Ile Asp Gly Ile Lys Asn Lys Ile His Pro Gly
 65 70 75 80
 Asp Ala Ala Asp Lys Asp Leu Tyr Asp Leu Pro Ala Glu Glu Ala Ala
 85 90 95
 Ala Ile Pro Gln Val Ala Ser Ser Leu Glu Glu Ala Leu Lys Cys Leu
 100 105 110
 Asp Gln Asp Arg Glu Phe Leu Thr Gln Gly Gly Val Phe Ser Asp Asp
 115 120 125
 Met Ile Asp Ala Tyr Ile Ala Leu Lys Ala Glu Glu Ala Gln Arg Val
 130 135 140
 Ala Met Thr Thr Thr Pro Leu Glu Phe Glu Leu Tyr Tyr Ser Leu
 145 150 155

<210> 2483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 2483

acgcgtgtta gccaaatctt gggtcctccc gttctctcct tacccgagcc tgaggcccct
 60
 ctggagaaca ggcagcctct gaggaacct ctgatccccg atcagccacc ccacgcctg
 120
 cgtccccage cgcttctctc tggccttggt ccccttccc tgtgaaggag agaacagttt
 180
 cggctggccc tgagatgctg gcaggcctgc agtcagggca gtgggcgctt cccaccttga
 240
 aatggtcctt cgtggtgcag ttctgcttac ggggtagact ttgttgctt ccacagagga
 300
 cagttagggg gggcaggaag gaagtctctg ccacaagtct gcattccagg ctgtttccag
 360
 aagtgggaat tctctcgtgc cctggagtct gggaatgcat ttttagtttc ccagcttcag
 420
 gtagaattga aattgagtga gccaaaccac cacatccatc tggagccagg aactagt
 477

<210> 2484

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2484

Met His Ser Gln Thr Pro Gly His Glu Arg Ile Pro Thr Ser Gly Asn
 1 5 10 15
 Ser Leu Glu Cys Arg Leu Val Ala Glu Thr Ser Phe Leu Pro Thr Leu
 20 25 30
 Thr Val Leu Cys Gly Arg Gln Gln Ser Leu Pro Arg Lys Gln Asn Cys
 35 40 45
 Thr Thr Lys Asp His Phe Lys Val Gly Gly Ala His Cys Pro Asp Cys
 50 55 60
 Arg Pro Ala Ser Ile Ser Gly Pro Ala Glu Thr Val Leu Ser Phe Thr
 65 70 75 80
 Gly Lys Gly Glu Gln Gly Gln Glu Glu Ala Ala Gly Asp Ala Gly Asp
 85 90 95

Gly Val Ala Asp Arg Gly Ser Glu Val Ser Ser Glu Ala Ala Cys Ser
 100 105 110
 Pro Glu Gly Pro Gln Ala Arg Val Arg Arg Glu Arg Glu Glu Pro Arg
 115 120 125
 Phe Gly
 130

<210> 2485
 <211> 608
 <212> DNA
 <213> Homo sapiens

<400> 2485
 accggtgagg cgaagtgcgg tggcaattac gcagcttcgc tgcgttccca gatcgatgcc
 60
 aagacccgcg actgcaacga ggtgctcttt gtcgatgcag ttgaacatcg ctggatcgag
 120
 gagctgggtg gtatgaactt catggccatc agcaaagacg gtcagctcgt ccccccgag
 180
 ctgctgggca ccatactgcg tggcgtgacc cgcaagtcca ttctggaagt tgccccgac
 240
 ctcggtcttg aaccagtgga gcgcaagatc gatgttgacg agctccttga tggcgttcgc
 300
 tctggcgagt tcccgaagt cttcgctgtt ggtaccgcg cggttgtcac accgatcggc
 360
 tctttcctag atggagatac cgacgtgaag gtctctgagc ccaccggaaa gaccacgatg
 420
 gagatccgtc gccgtctgct ggatatccag ttcggacgcg ctgaggacac ccatggctgg
 480
 ttgaagcgag tctgctgacg gcgtcgacga ccattggggc cgcccccaat gatgtgttca
 540
 cgatcgggct acgacggtgt cgatgacaat gtcttgccgc tggaagggtt gcccgacggt
 600
 gaacgcgt
 608

<210> 2486
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 2486
 Thr Gly Glu Ala Lys Cys Gly Gly Asn Tyr Ala Ala Ser Leu Arg Ser
 1 5 10 15
 Gln Ile Asp Ala Lys Thr Arg Asp Cys Asn Glu Val Leu Phe Val Asp
 20 25 30
 Ala Val Glu His Arg Trp Ile Glu Leu Gly Gly Met Asn Phe Met
 35 40 45
 Ala Ile Ser Lys Asp Gly Gln Leu Val Thr Pro Glu Leu Ala Gly Thr
 50 55 60
 Ile Leu Arg Gly Val Thr Arg Lys Ser Ile Leu Glu Val Ala Pro Asp
 65 70 75 80
 Leu Gly Leu Glu Pro Val Glu Arg Lys Ile Asp Val Asp Glu Leu Leu
 85 90 95

Asp Gly Val Arg Ser Gly Glu Phe Pro Glu Val Phe Ala Cys Gly Thr
 100 105 110
 Ala Ala Val Val Thr Pro Ile Gly Ser Phe Leu Asp Gly Asp Thr Asp
 115 120 125
 Val Lys Val Ser Glu Pro Thr Gly Lys Thr Thr Met Glu Ile Arg Arg
 130 135 140
 Arg Leu Leu Asp Ile Gln Phe Gly Arg Ala Glu Asp Thr His Gly Trp
 145 150 155 160
 Leu Lys Arg Val Cys
 165

<210> 2487

<211> 339

<212> DNA

<213> Homo sapiens

<400> 2487

nnccccctcag gagagcagcc catggaaggt cccccccaag gggccccctga gagccctgac
 60
 agtctgcaaa gaaaccagaa agagctccag ggcctcctga cccagggtgca agccctggag
 120
 aaggaggccg caagcagtgt ggacgtgcag gccctgcgga ggctctttga ggccgtgccc
 180
 cagctgggag gggctgctcc tcaggctcct gctgcccacc aaaagcccga ggccctcagt
 240
 gagcaggcct ttggggagct gacacgggtc agcacggaag ttgctcaact gaaggaacag
 300
 accttggttaa ggctgctgga cattgaagag gctgtgcac
 339

<210> 2488

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2488

Xaa Pro Ser Gly Glu Gln Pro Met Glu Gly Pro Pro Gln Gly Ala Pro
 1 5 10 15
 Glu Ser Pro Asp Ser Leu Gln Arg Asn Gln Lys Glu Leu Gln Gly Leu
 20 25 30
 Leu Thr Gln Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp
 35 40 45
 Val Gln Ala Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly
 50 55 60
 Ala Ala Pro Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val
 65 70 75 80
 Glu Gln Ala Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln
 85 90 95
 Leu Lys Glu Gln Thr Leu Val Arg Leu Leu Asp Ile Glu Glu Ala Val
 100 105 110
 His

<210> 2489

<211> 594
 <212> DNA
 <213> Homo sapiens

<400> 2489
 nacgcgttct tcggactggc gacgatgctg atttctatcc cgacgggggt gaagctatct
 60
 aactggctgg tcaccatcta tcacggccgg gtgcgtatca ccagccaggt tctttggacc
 120
 ctgggcttca tggtgacctt cgcgatcgga ggcgatgacc gcgtactgct ggccatcccc
 180
 ggtgctgact tcgtactgca caacagcctg ttcggaattg ctcacttcca caacgtgatc
 240
 atcggcgggc cagtattcgg ctacatcgca ggtttcagct tctacttccc gaaagcgttc
 300
 ggcttcaagc tgcacgaaag ctggggcaag gctgcattct ggttctggat ctcgggcttc
 360
 ttcgctcgct tcatgccgct ctatgcactg ggtttcatgg gcatgaccg ttgtttgaac
 420
 gcccccccca cccctgagtg ggtcccgta ctgtacgttg ccatggtcgg tgcactgatg
 480
 atcgtgtcgt gtatcgctg ccagttgatt cagctgtatg tcagcgtgcg tgatcgcaag
 540
 cagaacatgt gcgaatccgg cgacccatgg aatgcacaca ccttggaatg gtcg
 594

<210> 2490
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 2490
 Xaa Ala Phe Phe Gly Leu Ala Thr Met Leu Ile Ser Ile Pro Thr Gly
 1 5 10 15
 Val Lys Leu Phe Asn Trp Leu Val Thr Ile Tyr His Gly Arg Val Arg
 20 25 30
 Ile Thr Ser Gln Val Leu Trp Thr Leu Gly Phe Met Val Thr Phe Ala
 35 40 45
 Ile Gly Gly Met Thr Gly Val Leu Leu Ala Ile Pro Gly Ala Asp Phe
 50 55 60
 Val Leu His Asn Ser Leu Phe Gly Ile Ala His Phe His Asn Val Ile
 65 70 75 80
 Ile Gly Gly Ala Val Phe Gly Tyr Ile Ala Gly Phe Ser Phe Tyr Phe
 85 90 95
 Pro Lys Ala Phe Gly Phe Lys Leu His Glu Ser Trp Gly Lys Ala Ala
 100 105 110
 Phe Trp Phe Trp Ile Ser Gly Phe Phe Val Ala Phe Met Pro Leu Tyr
 115 120 125
 Ala Leu Gly Phe Met Gly Met Thr Arg Cys Leu Asn Ala Pro Pro Thr
 130 135 140
 Pro Glu Trp Val Pro Tyr Leu Tyr Val Ala Met Val Gly Ala Leu Met
 145 150 155 160
 Ile Ala Val Gly Ile Ala Cys Gln Leu Ile Gln Leu Tyr Val Ser Val
 165 170 175

Arg Asp Arg Lys Gln Asn Met Cys Glu Ser Gly Asp Pro Trp Asn Ala
 180 185 190
 His Thr Leu Glu Trp Ser
 195

<210> 2491
 <211> 592
 <212> DNA
 <213> Homo sapiens

<400> 2491
 acgcgtcacg caactgtcaa acttgccaat ccgcttgacg atactcgccc ctacctacgc
 60
 actacgttgt tgcttggctt attccatgca gtaacgacga atatgtcgcg atctcaggat
 120
 gatcttgcag tgttcgaaag cggaactgta ttccgcgccg tcaactccggc tgcggcaccg
 180
 cgtcccgggtg tcgacgagcg cccctccgat gaagtccttg ccgagatcga cgcgccttg
 240
 ccagcccagc cgcgcatgct cgcggccgtg atctgtggca gctggctgcc cgatcgctgg
 300
 gatggagagt cgggtcaaggc tgactggcga cacgctgtgc tggtcgcccga gaaggctgct
 360
 gatgctcttg gcgtgaggct ggtgcgcaag gctgaccgtc aggctccatg gcatcccggg
 420
 cgttgtgcgg ctctcatcgt cgatgggaag gtcattggcc atgctggtga gttgcacccc
 480
 acagtagtgt cgaaggctgg tctgctcag cgcacctgtg cggtcgagtt caatctagat
 540
 gctttggtag cctgcgctcc gagcgggtgt gaggtcatgg ttatttcaag gt
 592

<210> 2492
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 2492
 Thr Arg His Ala Thr Val Lys Leu Ala Asn Pro Leu Asp Asp Thr Arg
 1 5 10 15
 Pro Tyr Leu Arg Thr Thr Leu Leu Pro Gly Leu Phe His Ala Val Thr
 20 25 30
 Thr Asn Met Ser Arg Ser Gln Asp Asp Leu Ala Val Phe Glu Ser Gly
 35 40 45
 Thr Val Phe Arg Ala Val Thr Pro Ala Ala Ala Pro Arg Pro Gly Val
 50 55 60
 Asp Glu Arg Pro Ser Asp Glu Val Leu Ala Glu Ile Asp Ala Ala Leu
 65 70 75 80
 Pro Ala Gln Pro Arg Met Leu Ala Ala Val Ile Cys Gly Ser Trp Leu
 85 90 95
 Pro Asp Arg Trp Asp Gly Glu Ser Val Lys Ala Asp Trp Arg His Ala
 100 105 110
 Val Leu Val Ala Gln Lys Ala Ala Asp Ala Leu Gly Val Arg Leu Val
 115 120 125

Arg Lys Ala Asp Arg Gln Ala Pro Trp His Pro Gly Arg Cys Ala Ala
 130 135 140
 Leu Ile Val Asp Gly Lys Val Ile Gly His Ala Gly Glu Leu His Pro
 145 150 155 160
 Thr Val Val Ser Lys Ala Gly Leu Pro Gln Arg Thr Cys Ala Val Glu
 165 170 175
 Phe Asn Leu Asp Ala Leu Val Ala Cys Ala Pro Ser Gly Gly Glu Val
 180 185 190
 Met Val Ile Ser Arg
 195

<210> 2493

<211> 418

<212> DNA

<213> Homo sapiens

<400> 2493

acgcgtcagg ttgccggtga tcgtgccacc gtcacctcca tgggtgccttc aggagcagac
 60
 cccacacact atgagccgctc gctgcgtgac gttcggaccg tcgtgtattc gagagtcgcg
 120
 ctatcgaact acctcatgct cgaacctcat tcgggtcatca agaccatcga ctcttcctta
 180
 cctacgggat ctatcaatgt ctccctggct gaggaagccc aaaagtacgg cgcacaagtg
 240
 atcccgcgtgg ttgaaaatgc caacctagac accgtgtggc tgggggttgcg cgtcattggc
 300
 aagggcgcca ggcggggagc cgaccgctct tctcgggtct acctccagct gacgtcggtg
 360
 gaggggcctg gggacttcac tgcctatatc actgggacct ttgggtcgacc tcagatct
 418

<210> 2494

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2494

Thr Arg Gln Val Ala Gly Asp Arg Ala Thr Val Thr Ser Met Val Pro
 1 5 10 15
 Ser Gly Ala Asp Pro His Thr Tyr Glu Pro Ser Leu Arg Asp Val Arg
 20 25 30
 Thr Val Val Tyr Ser Arg Val Ala Leu Ser Asn Tyr Leu Met Leu Glu
 35 40 45
 Pro His Ser Val Ile Lys Thr Ile Asp Ser Ser Leu Pro Thr Gly Ser
 50 55 60
 Ile Asn Val Ser Leu Ala Glu Glu Ala Gln Lys Tyr Gly Ala Gln Val
 65 70 75 80
 Ile Pro Leu Val Glu Asn Ala Asn Leu Asp Thr Val Trp Leu Gly Leu
 85 90 95
 Arg Val Ile Gly Lys Gly Ala Arg Arg Gly Ala Asp Arg Ser Ser Ser
 100 105 110
 Val Tyr Leu Gln Leu Thr Ser Val Glu Gly Pro Gly Asp Phe Thr Ala
 115 120 125

Tyr Ile Thr Gly Thr Phe Gly Arg Pro Gln Ile
 130 135

<210> 2495

<211> 1478

<212> DNA

<213> Homo sapiens

<400> 2495

```

nnggcctggc ccagttgcac caccgagcgt gcggacactc ggggcggcag tcggtctgtc
60
agtcctcccg ccaggtcccg cggcccgcac ctgccgcccg cacctgcagc tccgcacctg
120
cggccagtg c tactgcct ctcttgccg cgcacctgc agcccgcac ctgccgcttg
180
cacctgcagc cccgcgctct acccggttca agcatggctg accaggcgcc cttcgacacg
240
gacgtcaaca cctgaccg cttcgtcatg gaggagggca ggaaggcccg cggcacgggc
300
gagttgacct agctgctcaa ctcgctctgc acagcagtca aagccatctc ttcggcggtg
360
cgcaaggcgg gcatcgcgca cctctatggc attgctgggt ctaccaacgt gacaggtgat
420
caagttaaga agctggacgt cctctccaac gacctggtta tgaacatgtt aaagtcattc
480
tttgccacgt gtgttctcgt gtcagaagaa gataaacacg ccatcatagt ggaaccggag
540
aaaaggggta aatatgtggt ctgttttgat ccccttgatg gatcttccaa catcgattgc
600
cttgtgtccg ttggaaccat ttttggcatc tatagaaaga aatcaactga tgagccttct
660
gagaaggatg ctctgcaacc aggcgggaac ctggtggcag ccggctacgc actgtatggc
720
agtgccacca tgctggtcct tgccatggac tgtgggggtca actgcttcat gctggacctg
780
gccatcgggg agttcatttt ggtggacaag gatgtgaaga taaaaaagaa aggtaaaatc
840
tacagcctta acgagggcta cgccaaggac tttgacctg ccgtcactga gtacatccag
900
aggaagaagt tccccccaga taattcagct ccttatgggg cccggtatgt gggctccatg
960
gtggctgatg ttcatgcac tctggtctac ggagggatat ttctgtacct cgctaacaag
1020
aagagcccca atggaaagct gagactgctg tacgaatgca accccatggc ctacgtcatg
1080
gagaaggctg ggggaatggc caccactggg aaggaggccg tgtagacgt cattcccaca
1140
gacattcacc agagggcgcc ggtgatcttg ggtcccccg acgacgtgct cgagttcctg
1200
aaggtgtatg agaagcactc tgcccagtga gcacctgccc tgctgcac cggagaattg
1260
cctctacctg gaccttttgt ctcacacagc agtaccctga cctgctgtgc accttacatt
1320

```

cctagagagc agaaataaaa agcatgacta tttccacat caaatgctgt agaatgcttg
 1380
 gcactcccta accaaatgct gtctccataa tgccactggt gttaagatat attttgagtg
 1440
 gatggaggag aaataaactt attcctcctt aaaaaaaaa
 1478

<210> 2496

<211> 338

<212> PRT

<213> Homo sapiens

<400> 2496

Met	Ala	Asp	Gln	Ala	Pro	Phe	Asp	Thr	Asp	Val	Asn	Thr	Leu	Thr	Arg
1			5						10					15	
Phe	Val	Met	Glu	Gly	Arg	Lys	Ala	Arg	Gly	Thr	Gly	Glu	Leu	Thr	
		20					25					30			
Gln	Leu	Leu	Asn	Ser	Leu	Cys	Thr	Ala	Val	Lys	Ala	Ile	Ser	Ser	Ala
	35					40					45				
Val	Arg	Lys	Ala	Gly	Ile	Ala	His	Leu	Tyr	Gly	Ile	Ala	Gly	Ser	Thr
	50				55					60					
Asn	Val	Thr	Gly	Asp	Gln	Val	Lys	Lys	Leu	Asp	Val	Leu	Ser	Asn	Asp
65				70					75					80	
Leu	Val	Met	Asn	Met	Leu	Lys	Ser	Ser	Phe	Ala	Thr	Cys	Val	Leu	Val
		85						90					95		
Ser	Glu	Glu	Asp	Lys	His	Ala	Ile	Ile	Val	Glu	Pro	Glu	Lys	Arg	Gly
	100						105					110			
Lys	Tyr	Val	Val	Cys	Phe	Asp	Pro	Leu	Asp	Gly	Ser	Ser	Asn	Ile	Asp
	115					120						125			
Cys	Leu	Val	Ser	Val	Gly	Thr	Ile	Phe	Gly	Ile	Tyr	Arg	Lys	Lys	Ser
	130					135					140				
Thr	Asp	Glu	Pro	Ser	Glu	Lys	Asp	Ala	Leu	Gln	Pro	Gly	Arg	Asn	Leu
145					150				155					160	
Val	Ala	Ala	Gly	Tyr	Ala	Leu	Tyr	Gly	Ser	Ala	Thr	Met	Leu	Val	Leu
			165					170					175		
Ala	Met	Asp	Cys	Gly	Val	Asn	Cys	Phe	Met	Leu	Asp	Pro	Ala	Ile	Gly
	180							185					190		
Glu	Phe	Ile	Leu	Val	Asp	Lys	Asp	Val	Lys	Ile	Lys	Lys	Lys	Gly	Lys
	195					200					205				
Ile	Tyr	Ser	Leu	Asn	Glu	Gly	Tyr	Ala	Lys	Asp	Phe	Asp	Pro	Ala	Val
	210					215					220				
Thr	Glu	Tyr	Ile	Gln	Arg	Lys	Lys	Phe	Pro	Pro	Asp	Asn	Ser	Ala	Pro
225				230					235					240	
Tyr	Gly	Ala	Arg	Tyr	Val	Gly	Ser	Met	Val	Ala	Asp	Val	His	Arg	Thr
			245					250					255		
Leu	Val	Tyr	Gly	Gly	Ile	Phe	Leu	Tyr	Pro	Ala	Asn	Lys	Lys	Ser	Pro
	260						265					270			
Asn	Gly	Lys	Leu	Arg	Leu	Leu	Tyr	Glu	Cys	Asn	Pro	Met	Ala	Tyr	Val
	275					280					285				
Met	Glu	Lys	Ala	Gly	Gly	Met	Ala	Thr	Thr	Gly	Lys	Glu	Ala	Val	Leu
295				300											
Asp	Val	Ile	Pro	Thr	Asp	Ile	His	Gln	Arg	Ala	Pro	Val	Ile	Leu	Gly
305				310					315					320	
Ser	Pro	Asp	Asp	Val	Leu	Glu	Phe	Leu	Lys	Val	Tyr	Glu	Lys	His	Ser

Ala Gln

325 330 335

<210> 2497
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 2497
 acgcgtgtct tggccggtga aacccttccc gcagcagggt cagtacgtcg caccggcgag
 60
 cttggctacc tgccacagga tccccgcgac ccagacatgg aaatgatcgc gagggcaagg
 120
 atcctgtcag cgcgtggcct ggaccacata ctggaacgga tgcgcaccct ggagtatcag
 180
 atggcgaacg gttccgagga cgaccgtgcc gttgcgatgg acaaatacgc gaaggctgaa
 240
 gaccgtctcg tcgcggccgg tggctatggc gcctctgcag aggcagcccg aatcgcgtcg
 300
 aacttggggc ttgacgaccg cgtcctttcc cagccgttga aaaacctctc gggtggtcag
 360
 cgtcgtcgcg tcgagctggc gcgcatectc ttttccgga
 399

<210> 2498
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 2498
 Thr Arg Val Leu Ala Gly Glu Thr Leu Pro Ala Ala Gly Ser Val Arg
 1 5 10 15
 Arg Thr Gly Glu Leu Gly Tyr Leu Pro Gln Asp Pro Arg Asp Pro Asp
 20 25 30
 Met Glu Met Ile Ala Arg Ala Arg Ile Leu Ser Ala Arg Gly Leu Asp
 35 40 45
 His Ile Leu Glu Arg Met Arg Thr Leu Glu Tyr Gln Met Ala Asn Gly
 50 55 60
 Ser Glu Asp Asp Arg Ala Val Ala Met Asp Lys Tyr Ala Lys Ala Glu
 65 70 75 80
 Asp Arg Leu Val Ala Ala Gly Gly Tyr Gly Ala Ser Ala Glu Ala Ala
 85 90 95
 Arg Ile Ala Ser Asn Leu Gly Leu Asp Arg Val Leu Ser Gln Pro
 100 105 110
 Leu Lys Asn Leu Ser Gly Gly Gln Arg Arg Arg Val Glu Leu Ala Arg
 115 120 125
 Ile Leu Phe Ser Gly
 130

<210> 2499
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 2499

nggccgggcg aagaccogtt ctatatggcc taccacgaca ccgagtgggg cgtgccggaa
 60
 tatgacgacc gcgcattgta cgagaagctc attctcgacg gattccaggc cggcctgtcg
 120
 tggatcacca tcttgcgcaa gcgcgacaac tttcgcaaag ccttcgacga tttccagccc
 180
 gagaagatag cgcgttacaa tgagaagaag gttcacgcgc tgatgaacga tgccggcatc
 240
 gtgcgcaacc gcgccaagat cgaaggcacg atcgccagcg cgaaggcgta tctcgacatc
 300
 atggaaaaag gcccgggctt ctccaggctg ctgtgggact tcgtcgac
 348

<210> 2500

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2500

Xaa	Pro	Gly	Glu	Asp	Pro	Phe	Tyr	Met	Ala	Tyr	His	Asp	Thr	Glu	Trp
1				5					10					15	
Gly	Val	Pro	Glu	Tyr	Asp	Asp	Arg	Ala	Leu	Tyr	Glu	Lys	Leu	Ile	Leu
			20					25					30		
Asp	Gly	Phe	Gln	Ala	Gly	Leu	Ser	Trp	Ile	Thr	Ile	Leu	Arg	Lys	Arg
		35					40					45			
Asp	Asn	Phe	Arg	Lys	Ala	Phe	Asp	Asp	Phe	Gln	Pro	Glu	Lys	Ile	Ala
	50					55					60				
Arg	Tyr	Asn	Glu	Lys	Lys	Val	His	Ala	Leu	Met	Asn	Asp	Ala	Gly	Ile
65					70					75				80	
Val	Arg	Asn	Arg	Ala	Lys	Ile	Glu	Gly	Thr	Ile	Ala	Ser	Ala	Lys	Ala
				85					90					95	
Tyr	Leu	Asp	Ile	Met	Glu	Lys	Gly	Pro	Gly	Phe	Ser	Arg	Leu	Leu	Trp
				100					105					110	
Asp	Phe	Val	Asp												
				115											

<210> 2501

<211> 569

<212> DNA

<213> Homo sapiens

<400> 2501

gaattcgatt catttgtggc aaatgcttac aatttgatga ttgtaacca tcaaatacaca
 60
 taatgcccac taagccactc catacacttc tttaaataagg aaaatatatg taaagtacgt
 120
 acttagcaca gggcctgacc tatagtaatg gtcaagaatg atagcggggg tgagggtatgg
 180
 ctttcaagag tcaaacaatt ttactgggtgc atcatttcca tttattcttt ctcttttgca
 240
 taataaaacc actcttaaga ttctaccttg gttagttaga gacaacagtt ctctggaaag
 300

tagattctat agcttcaact ccctgaagag atgtgtgcta atttacatca aaaaaatcct
 360
 taagggtata aaatatgccca agaactgtca acatcacaga ttaccactgg tagcttctgg
 420
 tatattgtta agtttccact taatttttaa gggacactag agaattagta tgactcacct
 480
 acactaagtt tatatactgt atttaacagt gtaattttca aatatgacag gaataaccca
 540
 gatgtgaaat gctgaatcat taatcacag
 569

<210> 2502

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2502

Met	Ile	Ala	Gly	Val	Arg	Tyr	Gly	Phe	Gln	Glu	Ser	Asn	Asn	Phe	Thr
1				5				10						15	
Gly	Ala	Ser	Phe	Pro	Phe	Ile	Leu	Ser	Leu	Leu	His	Asn	Lys	Thr	Thr
			20					25					30		
Leu	Lys	Ile	Leu	Pro	Trp	Leu	Val	Arg	Asp	Asn	Ser	Ser	Leu	Glu	Ser
		35					40					45			
Arg	Phe	Tyr	Ser	Phe	Asn	Ser	Leu	Lys	Arg	Cys	Val	Leu	Ile	Tyr	Ile
	50					55				60					
Lys	Lys	Ile	Leu	Lys	Gly	Ile	Lys	Tyr	Ala	Lys	Asn	Cys	Gln	His	His
65					70				75					80	
Arg	Leu	Pro	Leu	Val	Ala	Ser	Gly	Ile	Leu	Leu	Ser	Phe	His	Leu	Ile
				85					90					95	
Phe	Lys	Gly	His												
			100												

<210> 2503

<211> 419

<212> DNA

<213> Homo sapiens

<400> 2503

gccacgccag ccactaccc tttcctcgac tcgccaaata agtattcact gaacatgtac
 60
 aaggccttgc tacctcagca gtcctacagc ttggcccagc cgctgtattc tccagtctgc
 120
 accaatgggg agcgctttct ctacctgccg ccacctcact acgtcgggtcc ccacatccca
 180
 tcgtccttgg catcacccat gaggtctctg acaccttcgg cctccccagc catcccgct
 240
 ctggtccatt gcgcagacaa aagcctcccg tggaagatgg gcgtcagccc tgggaatcct
 300
 gttgattccc acgcctatcc tcacatccag aacagtaagc agcccagggt tccctctgcc
 360
 aaggcgggtca ccagtggcct gccgggggac acagctctcc tgttgcccc ctcacgcgt
 419

<210> 2504

<211> 121
 <212> PRT
 <213> Homo sapiens

<400> 2504
 Met Tyr Lys Ala Leu Leu Pro Gln Gln Ser Tyr Ser Leu Ala Gln Pro
 1 5 10 15
 Leu Tyr Ser Pro Val Cys Thr Asn Gly Glu Arg Phe Leu Tyr Leu Pro
 20 25 30
 Pro Pro His Tyr Val Gly Pro His Ile Pro Ser Ser Leu Ala Ser Pro
 35 40 45
 Met Arg Leu Ser Thr Pro Ser Ala Ser Pro Ala Ile Pro Pro Leu Val
 50 55 60
 His Cys Ala Asp Lys Ser Leu Pro Trp Lys Met Gly Val Ser Pro Gly
 65 70 75 80
 Asn Pro Val Asp Ser His Ala Tyr Pro His Ile Gln Asn Ser Lys Gln
 85 90 95
 Pro Arg Val Pro Ser Ala Lys Ala Val Thr Ser Gly Leu Pro Gly Asp
 100 105 110
 Thr Ala Leu Leu Pro Pro Ser Arg
 115 120

<210> 2505
 <211> 540
 <212> DNA
 <213> Homo sapiens

<400> 2505
 tccggagcca atccgactca ggccctcgtc tggagccagg tgctgttgag catgggggttg
 60
 ccgctcgtgt tgggtgccgtt ggctcgggtc accggcgatc ggctgtctgat gggccaatgg
 120
 acgaatgggc gtgtcatggc cgccatcgcg tggatcgctg tggcagcagt ctgggctctc
 180
 aacgtgggtc tcgtcgtcga gacggtcgat ggtgcatgat ccttgagggc agttttctgg
 240
 cgacaatcgt gaaaatgagt gacaaactca agcgggtgac gacgccgaac cccgcaccga
 300
 cctctgcca cgagctagcc aacgatttgg cactgcatt tcgcgggtac cctgctggag
 360
 tggcgatcct cacgacgatg ggagcggctg ggcccagggt cttgacggtc tcctccctgg
 420
 cgtcgggtgc agtcgtcccg gctgttgtgt cgggtgctgt gggtaatggg tcgacgaccc
 480
 tggccaccct gacggaggag tcccgcgtca tcgtccacat gcttgatgca gatcgcgcg
 540

<210> 2506
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 2506
 Ser Gly Ala Asn Pro Thr Gln Ala Leu Val Trp Ser Gln Val Leu Leu

1	5	10	15
Ser Met Gly Leu Pro Leu Val Leu Val Pro Leu Ala Arg Phe Thr Gly			
20	25	30	
Asp Arg Arg Leu Met Gly Gln Trp Thr Asn Gly Arg Val Met Ala Ala			
35	40	45	
Ile Ala Trp Ile Val Val Ala Ala Val Ser Ala Leu Asn Val Val Leu			
50	55	60	
Val Val Glu Thr Val Met Gly Ala			
65	70		

<210> 2507

<211> 922

<212> DNA

<213> Homo sapiens

<400> 2507

nacgcgtgaa gggcagagga gagagaccag tgaaggggga ggaggcggcc aaaaggagac
 60
 agcttcatgc ccccaggaca taaatagccc ggctgctgca ggtacctgaa ggagttcagg
 120
 acggagcagt gccccctgtt ttcacagcac aagtgcgcgc agcaccggcc gttcacctgc
 180
 ttccactggc acttcctcaa ccagcggcgc cgcaggcccc tccgcaggcg cgacggcacc
 240
 ttcaactaca gccccgacgt gtactgctcc aagtacaacg aagccaccgg cgtgtgcccc
 300
 gacggcgacg agtgtcccta cctgcaccgg acgacggggg acacagaacg caagtaccac
 360
 ctgcgttact acaaaacagg aacctgcac cagcagacag acgcacgtgg ccaactgcgtg
 420
 aagaatgggc tgcactgtgc cttcgcgcac gggcccatg acctccgctc ccctgtctac
 480
 gacatcaggg agcttcaggc catggaggcc ttgcagaatg gccagaccac ggtagagggg
 540
 agcatagagg gccagtcggc tggggctgcg agccatgcca tgatagaaaa gatcctcagc
 600
 gaggagcctc ggtggcaaga gactgcttat gtgctgggga actataagac ggagccttgc
 660
 aagaagcccc cgcggctgtg ccgccaaggc tatgcctgtc cctactacca caacagcaag
 720
 gaccggcggc ggagcccccg gaagcacaaa tacaggctgt ctccatgtcc aaacgtcaag
 780
 cacggggatg agtggggaga ccctggcaag tgtgagaacg gagacgcctg ccagtactgc
 840
 cacacccgca ccgagcagca gtccacccc gagatctaca agtccaccaa gtgcaacgga
 900
 aggggggggg ggggtgagga gg
 922

<210> 2508

<211> 278

<212> PRT

<213> Homo sapiens

<400> 2508

Pro Gly Cys Cys Arg Tyr Leu Lys Glu Phe Arg Thr Glu Gln Cys Pro
 1 5 10 15
 Leu Phe Ser Gln His Lys Cys Ala Gln His Arg Pro Phe Thr Cys Phe
 20 25 30
 His Trp His Phe Leu Asn Gln Arg Arg Arg Arg Pro Leu Arg Arg Arg
 35 40 45
 Asp Gly Thr Phe Asn Tyr Ser Pro Asp Val Tyr Cys Ser Lys Tyr Asn
 50 55 60
 Glu Ala Thr Gly Val Cys Pro Asp Gly Asp Glu Cys Pro Tyr Leu His
 65 70 75 80
 Arg Thr Thr Gly Asp Thr Glu Arg Lys Tyr His Leu Arg Tyr Tyr Lys
 85 90 95
 Thr Gly Thr Cys Ile His Glu Thr Asp Ala Arg Gly His Cys Val Lys
 100 105 110
 Asn Gly Leu His Cys Ala Phe Ala His Gly Pro His Asp Leu Arg Ser
 115 120 125
 Pro Val Tyr Asp Ile Arg Glu Leu Gln Ala Met Glu Ala Leu Gln Asn
 130 135 140
 Gly Gln Thr Thr Val Glu Gly Ser Ile Glu Gly Gln Ser Ala Gly Ala
 145 150 155 160
 Ala Ser His Ala Met Ile Glu Lys Ile Leu Ser Glu Glu Pro Arg Trp
 165 170 175
 Gln Glu Thr Ala Tyr Val Leu Gly Asn Tyr Lys Thr Glu Pro Cys Lys
 180 185 190
 Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro Tyr Tyr His
 195 200 205
 Asn Ser Lys Asp Arg Arg Arg Ser Pro Arg Lys His Lys Tyr Arg Ser
 210 215 220
 Ser Pro Cys Pro Asn Val Lys His Gly Asp Glu Trp Gly Asp Pro Gly
 225 230 235 240
 Lys Cys Glu Asn Gly Asp Ala Cys Gln Tyr Cys His Thr Arg Thr Glu
 245 250 255
 Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys Cys Asn Gly Arg
 260 265 270
 Gly Gly Gly Val Arg Glu
 275

<210> 2509

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2509

gccggccttg acctgggccc ggcatggct ccacggcaag gtccaatact ccgtgcgctt
 60
 gtggcgctgg acttcgtcga tgcccgcgag gttttgctgc ccgcgaccat tggactggac
 120
 gttcatgaac ggggtggagcc cggcaaaacc gaaactcaac caatccttgg ggatgctgga
 180
 cggcaggttg ccgagggcaa acacgttgac cacgttcgca ccgacaccac cgaccacggc
 240
 caccgtccc agcggaatct cgtagactta gcgccagggt tggtaaggcg tgtagcggtc
 300

gtaacgacgg gtgacctcga actcggggct tcaaagtctt ctgctgtg
348

<210> 2510

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2510

Met	Ala	Pro	Arg	Gln	Gly	Pro	Ile	Leu	Arg	Ala	Leu	Val	Ala	Leu	Asp
1				5				10					15		
Phe	Val	Asp	Ala	Arg	Glu	Val	Leu	Leu	Pro	Ala	Thr	Ile	Gly	Leu	Asp
			20					25					30		
Val	His	Glu	Arg	Val	Glu	Pro	Gly	Lys	Thr	Glu	Thr	Gln	Pro	Ile	Leu
			35				40					45			
Gly	Asp	Ala	Gly	Arg	Gln	Val	Ala	Glu	Gly	Lys	His	Val	Asp	His	Val
	50					55					60				
Arg	Thr	Asp	Thr	Thr	Asp	His	Gly	His	Arg	Ser	Gln	Arg	Asn	Leu	Val
65					70					75				80	
Asp	Leu	Ala	Pro	Gly	Leu	Val	Arg	Arg	Val	Ala	Val	Val	Thr	Thr	Gly
				85					90					95	
Asp	Leu	Glu	Leu	Gly	Ala	Ser	Lys	Ser	Ser	Ala	Val				
				100				105							

<210> 2511

<211> 663

<212> DNA

<213> Homo sapiens

<400> 2511

nnacgcgtgt gggaccatat caggggagcc cgatgggttct caggtaaggg ccgggggtggt
60
tccctgacta ggctgctgtc gttggctccc gtcgtcaacg agcaagatct gcaagtgtct
120
cctgtcatcg cacacgtcgg ttatccgcag gccgccgacg agtattacca gttgctttta
180
gcattacgcc caggacgcgt tgctggcctg gcggagatcg tcgtcaacgg tcaacctttt
240
accgtcactg acgccactga ggatgaacta gctctcactg cttgggctcg tatectctc
300
gagggaaact ccategccat ggatggatcg tggcagctgc atcgccgtcg agcgggccct
360
gagccagttc ggttcgctaa gcgcttcggt ggtgagcaat cgaacacctc gatcatgggtg
420
ggcgacgcca tcatcatcaa aatgttccgc cgcttgagc ccggcgacaa ccttgacatc
480
accgtgcata gcgccctcaa cgatgccggg atctcatcgg tggccacatt gtacggcttt
540
atgtccggac agatccccgc tgaggaacac atcccggctg atctagctat gatcattgag
600
aggttgccac agccccggga tggctgggaa ctcactcact ccaaggcagt cgatctcgtc
660
gac
663

<210> 2512
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 2512
 Xaa Arg Val Trp Asp His Ile Arg Gly Ala Arg Trp Phe Ser Gly Lys
 1 5 10 15
 Gly Arg Gly Gly Ser Leu Thr Arg Leu Leu Ser Leu Ala Pro Val Val
 20 25 30
 Asn Glu Gln Asp Leu Gln Val Leu Pro Val Ile Ala His Val Gly Tyr
 35 40 45
 Pro Gln Ala Ala Asp Glu Tyr Tyr Gln Leu Leu Leu Ala Leu Arg Pro
 50 55 60
 Gly Arg Val Ala Gly Leu Ala Glu Ile Val Val Asn Gly Gln Pro Phe
 65 70 75 80
 Thr Val Thr Asp Ala Thr Glu Asp Glu Leu Ala Leu Thr Ala Trp Ala
 85 90 95
 Arg Ile Leu Leu Glu Gly Thr Pro Ile Ala Met Asp Gly Ser Trp Gln
 100 105 110
 Leu His Arg Arg Arg Ala Ala Pro Glu Pro Val Arg Phe Ala Lys Arg
 115 120 125
 Phe Gly Gly Glu Gln Ser Asn Thr Ser Ile Met Val Gly Asp Ala Ile
 130 135 140
 Ile Ile Lys Met Phe Arg Arg Leu Glu Pro Gly Asp Asn Leu Asp Ile
 145 150 155 160
 Thr Val His Ser Ala Leu Asn Asp Ala Gly Ile Ser Ser Val Ala Thr
 165 170 175
 Leu Tyr Gly Phe Met Ser Gly Gln Ile Pro Ala Glu Glu His Ile Pro
 180 185 190
 Val Asp Leu Ala Met Ile Ile Glu Arg Leu Pro Gln Pro Arg Asp Gly
 195 200 205
 Trp Glu Leu Ile Thr Ala Lys Ala Val Asp Leu Val Asp
 210 215 220

<210> 2513
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 2513
 ctggctggaa tgatcacctt tacctgcaac ctggctgaga atgtgtccag caaagttcgt
 60
 cagcttgacc tggccaagaa ccgcctctat caggccattc agagagctga tgacatcttg
 120
 gacctgaagt tctgcatgga tggagtccag actgctttga ggagtgaaga ttatgagcag
 180
 gctgcagcac atattcatcg ctacttgtgc ctggacaagt cggtcattga gctcagccga
 240
 cagggcaaag agggtcagca tccgaaactg gagcatgatt gatgccaaacc tgaaattgct
 300
 gcaggaagct gagcaacgtc tcaaagccat tgtggcagag aagtttgcca ttgccaccaa
 360

ggaaggtg
368

<210> 2514
<211> 93
<212> PRT
<213> Homo sapiens

<400> 2514
Leu Ala Gly Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val Ser
1 5 10 15
Ser Lys Val Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala
20 25 30
Ile Gln Arg Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly
35 40 45
Val Gln Thr Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His
50 55 60
Ile His Arg Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg
65 70 75 80
Gln Gly Lys Glu Gly Gln His Pro Lys Leu Glu His Asp
85 90

<210> 2515
<211> 351
<212> DNA
<213> Homo sapiens

<400> 2515
agatcttaag ggccccagga atttgttttg ttttcctttt taactcccca ggtaattatg
60
gctcatcctg gaccagaccc ttctacccc tccaactccc caacaactgg gcaattggaa
120
tatcagtcca tccctaaaag ccaaccaggc tctcccgagg gaggcaggaa atccctgctc
180
cctccatccc ccaccgggaa tgctgcaggg ggcttgaggg aggcgacaca gtggggagct
240
ctgggtgcag gtgggcagac aatgggccaa cacaccccct cagccccgct ccagtatcag
300
cattccagac ccaccacct gggcccttgg tcaccgggag acctcacgcg t
351

<210> 2516
<211> 98
<212> PRT
<213> Homo sapiens

<400> 2516
Met Ala His Pro Gly Pro Asp Pro Ser Tyr Pro Ser Asn Ser Pro Thr
1 5 10 15
Thr Gly Gln Leu Glu Tyr Gln Ser Ile Pro Lys Ser Gln Pro Gly Ser
20 25 30
Pro Glu Gly Gly Arg Lys Ser Leu Pro Pro Ser Pro Thr Gly Asn
35 40 45
Ala Ala Gly Gly Leu Arg Glu Ala Thr Gln Trp Gly Ala Leu Gly Ala

50 55 60
 Gly Gly Gln Thr Met Gly Gln His Thr Pro Ser Ala Pro Leu Gln Tyr
 65 70 75 80
 Gln His Ser Arg Pro Thr His Leu Gly Pro Trp Ser Pro Gly Asp Leu
 85 90 95
 Thr Arg

<210> 2517
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 2517
 acgcgtggaa agacagtgc tgtgagtgtg tacgcatggg agcagaaggg gaggacaaac
 60
 ggaggtggcc agtgagtcag gaggcggggg ggggggctag ggcttcccca ggggtcagga
 120
 cctgtcacca accaaacccc atgggcctat tcagcagccc caacttggct ggtctggccg
 180
 aggccacaca ttccctgggg actgagctcc aaggtgctgg gtccttgagc aggaagcggc
 240
 cagtgttgag tgggcagtgt ctactccag cccctccttc ccaggccagt tcttctcatc
 300
 tccctcagtc tttccaagc aggcctcat ctacagggca gacctgactg gctagc
 356

<210> 2518
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 2518
 Met Gly Ala Glu Gly Glu Asp Lys Arg Arg Trp Pro Val Ser Gln Glu
 1 5 10 15
 Ala Gly Gly Gly Ala Arg Ala Ser Pro Gly Val Arg Thr Cys His Gln
 20 25 30
 Pro Asn Pro Met Gly Leu Phe Ser Ser Pro Asn Leu Ala Gly Leu Ala
 35 40 45
 Glu Ala Thr His Ser Leu Gly Thr Glu Leu Gln Gly Ala Gly Ser Leu
 50 55 60
 Ser Arg Lys Arg Pro Val Leu Ser Gly Gln Cys Leu Thr Pro Ala Pro
 65 70 75 80
 Pro Ser Gln Ala Ser Ser Ser His Leu Pro Gln Ser Phe Pro Ser Arg
 85 90 95
 Pro Ser Ser Thr Gly Gln Thr
 100

<210> 2519
 <211> 830
 <212> DNA
 <213> Homo sapiens

<400> 2519

accggtcagt ctgcgcggca gcaccgcacc ccggagccgc agctcttctt cccgcttgcc
 60
 cgacagccct ggtgccaagc cctgtctgag cccaccagg aggaagcgcg tgctggctgc
 120
 tctccatctg ctctgggact ctggcctgct gtttctctg cctgccactc cccaaccccg
 180
 tttctctctc tgaaaactgg agctacacct gcccacacag ggcagaatta ccttaaatgg
 240
 cacaagacaa ttgcacagca gaccacctc ttctccaaag ttttcagggc ccaaaccag
 300
 acacctcctt gcaggactca tggctaccgt gggctcgac caccagctc cccatgcgtt
 360
 ttcttgctc tgcttttgct caatctgctc aatgacagaa acgcgacaac agagggcact
 420
 ttctccaaac ccagctctcc ctcgaggtc ccatcctgct gctcacgtg aggccactct
 480
 accctgcct cgcagctca caggcagacc tggagcccag tgactacagg gttggcctcc
 540
 tcatttgcc accactcaca atgccagca gtgttaaaat ccggcaggat gcaccgctt
 600
 gggaagcagt ccccaaagca gaatcgctac cacatctgaa tagtttctgc catccactg
 660
 acaggccagc atctaaaaga gatgtgcgt gagcgctcgt tatgtggtgg cgctgctgtg
 720
 gtttcttaac cagaacgcaa aatcctgtga ccaggattat caccggctcg tttcatacat
 780
 gagacggggg aagccaaagt aaccactcag gccacagcag aaaaacgct
 830

<210> 2520

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2520

Met	Ser	Pro	Ala	Arg	Arg	Cys	Leu	Gly	Leu	Gly	Pro	Glu	Asn	Phe	Gly
1				5				10						15	
Glu	Glu	Val	Gly	Leu	Leu	Cys	Asn	Cys	Leu	Val	Pro	Phe	Lys	Val	Ile
			20					25					30		
Leu	Pro	Cys	Trp	Gly	Arg	Cys	Ser	Ser	Ser	Phe	Gln	Arg	Arg	Lys	Arg
		35					40					45			
Gly	Trp	Gly	Val	Ala	Gly	Arg	Gly	Ser	Ser	Arg	Pro	Glu	Ser	Gln	Ser
	50					55					60				
Arg	Trp	Arg	Ala	Ala	Ser	Thr	Arg	Phe	Leu	Leu	Val	Gly	Leu	Arg	Gln
65				70					75					80	
Gly	Leu	Ala	Pro	Gly	Leu	Ser	Gly	Lys	Arg	Glu	Glu	Glu	Leu	Arg	Leu
			85					90					95		
Arg	Gly	Ala	Val	Leu	Pro	Arg	Arg	Leu	Thr	Gly					
			100					105							

<210> 2521

<211> 4291

<212> DNA

<213> Homo sapiens

<400> 2521

ctctctctct ttcgggcgga gtcgcccacc actgccagcc cagcgtggg gggacctgct
60
ccaggctgta gccgcaggac cccaccaccc cccatggctc ccctggcett ggtgggggtc
120
acactcctcc tggcggtcc cccatgctcc ggggcagcca cccaacccc ctccctgccg
180
cctccccgg ccaatgacag cgacaccagc acagggggct gccaggggtc ctaccgctgc
240
cagccggggg tgctgctgcc cgtgtgggag cccgacgacc cgtcgtggg tgacaaggcg
300
gcacgggcag tgggtgactt tgtggccatg gtctacatgt ttctgggagt gtccatcatc
360
gccgaccgtt tcatggcggc catcgaggtc atcacgtcaa aagagaagga gatcaccatc
420
accaaggcca acggtgagac cagcgtgggc accgttcgca tctggaatga gacggtgtcc
480
aacctcacgc tcatggccct gggtcctcc gcacctgaga tctgctgtc agtcatcgaa
540
gtctgcggcc acaacttcca ggcgggtgag ctgggcccag gcaccatcgt gggcagcgt
600
gccttcaaca tgtttggtt catcgccgtg tgcatctacg tcatcccagc cggcgagagc
660
cgcaagatca agcacctgag agtcttcttt gtcactgcct cttggagcat ctctgcctat
720
gtctggcttt atctcatcct tgctgttttt tccccgggtg tgggccaggt gtgggaggcg
780
ctgtgaccc tgggtcttct cccggtgtgc gtggtattcg cctggatggc cgacaagcgg
840
ctgtcttctt acaagtacgt gtacaagcgc taccgcaccg acccacgcag cggcatcatc
900
ataggcgccg agggcgaccc cccgaagagc atcgagctgg acggcacgtt cgtgggcgcc
960
gaggccccag gtgagctggg cggcctgggc cggggccccg ccgaggcgcg cgagctggac
1020
gccagccgcc gcgaggtcat ccagatcctc aaggacctca agcagaagca cccggacaag
1080
gatctggagc agctggtggg catcgccaac tactacgcgc tgctgcacca gcagaagagc
1140
cgcgcttctt accgcatcca ggccacgcgg ctgatgaccg gcgcccggaa cgtgctgcgc
1200
agacacgcgg cggacgcctc gcgcagggcg gcgcccggcg agggcgcggg cgaggacgaa
1260
gacgacggcg ccagccgcat cttcttcgag cctagcctct accactgcct ggagaactgc
1320
ggctccgtgc tgctgtccgt cacgtgccag ggcggcgagg gcaacagcac cttctacgtg
1380
gactaccgca ctgaggacgg ctctgccaag gcgggctccg actacgagta cagcgagggc
1440
acgtggtgt tcaaaccagg cgagacgcag aaggagctgc gcatcggcat catcgacgac
1500
gacatcttcg aggaggacga gcatttcttc gtgcggctgc tgaacctgcg cgtgggcgac
1560

gcgagggca tgttcgagcc ggacggcggc gggcgggcca aggggcggct ggtggcgccg
1620
ctgctggcca ccgtcaccat cctggacgac gaccacgcag gcattcttctc cttccaggac
1680
cgcttctgc acgtgagcga gtgcatgggc accgtggacg tgcgcgtcgt gcgcagctcg
1740
ggcgcgcgcg gcaccgtgcg ccttccctac cgcacgggtg acggcacggc gcgcggcgcg
1800
ggcgtgcact acgaggacgc gtgcggagag ctggagtttg gcgacgacga gaccatgaaa
1860
actcttcagg tgaagatagt tgatgacgag gaatatgaga aaaaggataa tttcttcatt
1920
gagctgggcc agccccagtg gcttaagcga gggatttcag ctctgctact caatcaaggg
1980
gatggggaca ggaagctaac agccgaggag gaggaggctc ggaggatagc agagatgggc
2040
aagccagttc ttggggagaa ctgcccgtg gaggtcatca tcgaggagtc atatgatttt
2100
aagaacacgg tggataaact catcaagaaa acgaacttgg ccttggtaat tgggacccat
2160
tcatggaggg agcagttttt agaggcaatt acggtgagcg caggggacga ggaggaggag
2220
gaggacgggt cccgggagga gcggctgccg tcgtgctttg actacgtgat gcacttcctg
2280
acggtgttct ggaaggtgct cttcgctgt gtgccccca ccgagtactg ccacggctgg
2340
gcctgctttg gtgtctccat cctggctatc ggctgctca ccgccctcat tggggacctc
2400
gcctccact tcggctgcac cgttgccctc aaggactctg tcaatgctgt tgtcttcgtt
2460
gccctgggca cctccatccc tgacacgttc gccagcaagg tggcgggcgt gcaggaccag
2520
tgcgcgacg cgtccatcgg caacgtgacc ggctccaacg cggatgaacgt gttccttggc
2580
ctggcgctcg cctggctctgt ggccgccgtg tactgggcgg tgcagggccg ccccttcgag
2640
gtgcgactg gcacgctggc cttctccgtc acgtcttca ccgtcttcgc cttcgtgggc
2700
attgccgtgc tgctgtaccg gcgcggccg cacatcggcg gcgagctggg cggcccgcg
2760
ggaccaagc tcgccaccac cgcgtcttct ctgggcctct ggctcctgta catcctcttc
2820
gccagcctgg aggcgtactg ccacatccgg ggcttctagg gcctcgcgca gagactcgtc
2880
cccaccgccc gcccggggct agggactcgg ctgcacctgc tcttggacct tggctcctt
2940
ttccccccag actcggcctc ctctctggg actcggcctc ccttctccgc cccctccct
3000
ggctttgatt gcccctgttc tgtgtccca gtagctcagc cttccctctt cctctcggga
3060
gcctccccg tctctccct gcggtgacct caactccagc ccatcctgtt ggtgaccgtc
3120
tatatccctg gggaaatttc caccacgtc ccctccccag ggaaccaccc ccagtaacca
3180

tcctggggag ttttaaggtct ctctccttgg tcacccagcc tggctttgcc cccaaagtct
 3240
 cccttccctt agtgaccccc ccccaacttca ccccatgtcc cagagcctca gaaccacccc
 3300
 tcctgggggg accctcgaag gaggtgtgca gagggcgtct cagctcccag cccttccccc
 3360
 cagccctcag ggagctccgc tcagccccgg cggggaggag cgggtgggtg tgcgcgcaag
 3420
 gaggcgcac acctttcctt ccaatccctc cactcgggtt cttgggagga cactcattct
 3480
 ccaggctcgg agacgagggg agaagtttgg ggtttcagtc ccagggtta gccggaggaa
 3540
 gcacattttg aacctgcaac ttcagacatt ccagctcccc cactcgcctt ccactacctc
 3600
 tgagagccca gccacgcctt ggagggaggg gcttgtgtgt gtatatagtg tgtttggggg
 3660
 aggggggacg cgggaggggtg catgtcttgg gaaaaggggg tgacagacaa cttttgagag
 3720
 ggcagcagac tccctcagcc atgagaacca gctttgggga ggaggccggg aatcaaagcg
 3780
 agtccagttg atctcccctg acaatctgga aggttcattt tgcctcagt gccagccaat
 3840
 ccgggcagga cctcgaaga ggagaccgag ggtcccagag gaccaatgct acaagccagc
 3900
 aaatgctgcc acatctctgc ctgatggggg gtgggggatg gtggggggat gggactgggc
 3960
 caagggatct ggggtgggcat ttttaacttt ggaggccttc catctgtcgg taggccatct
 4020
 gcattttctt actgttgatg tttcctgccc aaaggacaca tttgggcagt gccaccact
 4080
 ccttgggccc ctaggatgac ccaactaccc ccataacttt ctgcttccca caggttttca
 4140
 gcattctatc gtcctgttgt gtcagcccc aacatcccag acccgttacc cgctaccctt
 4200
 ctctccccca gctcatcatc agtcgctgtc tcttttctgt gatttctgta aaagttgcc
 4260
 taaaactttg aaattctgcc tgaaaaaaaa a
 4291

<210> 2522

<211> 952

<212> PRT

<213> Homo sapiens

<400> 2522

Leu Ser Leu Phe Arg Ala Glu Ser Pro Thr Thr Ala Ser Pro Ala Leu
 1 5 10 15
 Gly Gly Pro Ala Pro Gly Cys Ser Arg Arg Thr Pro Pro Pro Pro Met
 20 25 30
 Ala Pro Leu Ala Leu Val Gly Val Thr Leu Leu Leu Ala Ala Pro Pro
 35 40 45
 Cys Ser Gly Ala Ala Thr Pro Thr Pro Ser Leu Pro Pro Pro Pro Ala
 50 55 60
 Asn Asp Ser Asp Thr Ser Thr Gly Gly Cys Gln Gly Ser Tyr Arg Cys

65					70					75				80
Gln	Pro	Gly	Val	Leu	Leu	Pro	Val	Trp	Glu	Pro	Asp	Asp	Pro	Ser
				85					90				95	
Gly	Asp	Lys	Ala	Ala	Arg	Ala	Val	Val	Tyr	Phe	Val	Ala	Met	Tyr
			100					105				110		
Met	Phe	Leu	Gly	Val	Ser	Ile	Ile	Ala	Asp	Arg	Phe	Met	Ala	Ile
		115				120					125			
Glu	Val	Ile	Thr	Ser	Lys	Glu	Lys	Glu	Ile	Thr	Ile	Thr	Lys	Asn
	130					135				140				
Gly	Glu	Thr	Ser	Val	Gly	Thr	Val	Arg	Ile	Trp	Asn	Glu	Thr	Ser
145					150				155					160
Asn	Leu	Thr	Leu	Met	Ala	Leu	Gly	Ser	Ser	Ala	Pro	Glu	Ile	Leu
			165					170					175	
Ser	Val	Ile	Glu	Val	Cys	Gly	His	Asn	Phe	Gln	Ala	Gly	Glu	Gly
		180					185					190		
Pro	Gly	Thr	Ile	Val	Gly	Ser	Ala	Ala	Phe	Asn	Met	Phe	Val	Ile
	195					200					205			
Ala	Val	Cys	Ile	Tyr	Val	Ile	Pro	Ala	Gly	Glu	Ser	Arg	Lys	Lys
	210					215					220			
His	Leu	Arg	Val	Phe	Phe	Val	Thr	Ala	Ser	Trp	Ser	Ile	Phe	Tyr
225				230					235					240
Val	Trp	Leu	Tyr	Leu	Ile	Leu	Ala	Val	Phe	Ser	Pro	Gly	Val	Gln
			245					250					255	
Val	Trp	Glu	Ala	Leu	Leu	Thr	Leu	Val	Phe	Phe	Pro	Val	Cys	Val
		260					265					270		
Phe	Ala	Trp	Met	Ala	Asp	Lys	Arg	Leu	Leu	Phe	Tyr	Lys	Tyr	Tyr
	275					280					285			
Lys	Arg	Tyr	Arg	Thr	Asp	Pro	Arg	Ser	Gly	Ile	Ile	Ile	Gly	Glu
	290				295						300			
Gly	Asp	Pro	Pro	Lys	Ser	Ile	Glu	Leu	Asp	Gly	Thr	Phe	Val	Ala
305				310					315					320
Glu	Ala	Pro	Gly	Glu	Leu	Gly	Gly	Leu	Gly	Pro	Gly	Pro	Ala	Glu
			325					330					335	
Arg	Glu	Leu	Asp	Ala	Ser	Arg	Arg	Glu	Val	Ile	Gln	Ile	Leu	Asp
		340					345					350		
Leu	Lys	Gln	Lys	His	Pro	Asp	Lys	Asp	Leu	Glu	Gln	Leu	Val	Gly
	355					360					365			
Ala	Asn	Tyr	Tyr	Ala	Leu	Leu	His	Gln	Gln	Lys	Ser	Arg	Ala	Tyr
	370				375					380				
Arg	Ile	Gln	Ala	Thr	Arg	Leu	Met	Thr	Gly	Ala	Gly	Asn	Val	Arg
385				390					395					400
Arg	His	Ala	Ala	Asp	Ala	Ser	Arg	Arg	Ala	Ala	Pro	Ala	Glu	Gly
			405					410					415	
Gly	Glu	Asp	Glu	Asp	Asp	Gly	Ala	Ser	Arg	Ile	Phe	Phe	Glu	Ser
		420					425					430		
Leu	Tyr	His	Cys	Leu	Glu	Asn	Cys	Gly	Ser	Val	Leu	Leu	Ser	Thr
	435					440					445			
Cys	Gln	Gly	Gly	Glu	Gly	Asn	Ser	Thr	Phe	Tyr	Val	Asp	Tyr	Thr
	450				455					460				
Glu	Asp	Gly	Ser	Ala	Lys	Ala	Gly	Ser	Asp	Tyr	Glu	Tyr	Ser	Gly
465				470					475					480
Thr	Leu	Val	Phe	Lys	Pro	Gly	Glu	Thr	Gln	Lys	Glu	Leu	Arg	Gly
			485					490					495	
Ile	Ile	Asp	Asp	Asp	Ile	Phe	Glu	Glu	Asp	Glu	His	Phe	Phe	Arg

500							505							510						
Leu	Leu	Asn	Leu	Arg	Val	Gly	Asp	Ala	Gln	Gly	Met	Phe	Glu	Pro	Asp					
515							520							525						
Gly	Gly	Gly	Arg	Pro	Lys	Gly	Arg	Leu	Val	Ala	Pro	Leu	Leu	Ala	Thr					
530							535							540						
Val	Thr	Ile	Leu	Asp	Asp	Asp	His	Ala	Gly	Ile	Phe	Ser	Phe	Gln	Asp					
545	550					555							560							
Arg	Leu	Leu	His	Val	Ser	Glu	Cys	Met	Gly	Thr	Val	Asp	Val	Arg	Val					
565							570							575						
Val	Arg	Ser	Ser	Gly	Ala	Arg	Gly	Thr	Val	Arg	Leu	Pro	Tyr	Arg	Thr					
580							585							590						
Val	Asp	Gly	Thr	Ala	Arg	Gly	Gly	Gly	Val	His	Tyr	Glu	Asp	Ala	Cys					
595							600							605						
Gly	Glu	Leu	Glu	Phe	Gly	Asp	Asp	Glu	Thr	Met	Lys	Thr	Leu	Gln	Val					
610							615							620						
Lys	Ile	Val	Asp	Asp	Glu	Glu	Tyr	Glu	Lys	Lys	Asp	Asn	Phe	Phe	Ile					
625	630					635							640							
Glu	Leu	Gly	Gln	Pro	Gln	Trp	Leu	Lys	Arg	Gly	Ile	Ser	Ala	Leu	Leu					
645							650							655						
Leu	Asn	Gln	Gly	Asp	Gly	Asp	Arg	Lys	Leu	Thr	Ala	Glu	Glu	Glu	Glu					
660							665							670						
Ala	Arg	Arg	Ile	Ala	Glu	Met	Gly	Lys	Pro	Val	Leu	Gly	Glu	Asn	Cys					
675							680							685						
Arg	Leu	Glu	Val	Ile	Ile	Glu	Glu	Ser	Tyr	Asp	Phe	Lys	Asn	Thr	Val					
690							695							700						
Asp	Lys	Leu	Ile	Lys	Lys	Thr	Asn	Leu	Ala	Leu	Val	Ile	Gly	Thr	His					
705	710					715							720							
Ser	Trp	Arg	Glu	Gln	Phe	Leu	Glu	Ala	Ile	Thr	Val	Ser	Ala	Gly	Asp					
725							730							735						
Glu	Glu	Glu	Glu	Glu	Asp	Gly	Ser	Arg	Glu	Glu	Arg	Leu	Pro	Ser	Cys					
740							745							750						
Phe	Asp	Tyr	Val	Met	His	Phe	Leu	Thr	Val	Phe	Trp	Lys	Val	Leu	Phe					
755							760							765						
Ala	Cys	Val	Pro	Pro	Thr	Glu	Tyr	Cys	His	Gly	Trp	Ala	Cys	Phe	Gly					
770							775							780						
Val	Ser	Ile	Leu	Val	Ile	Gly	Leu	Leu	Thr	Ala	Leu	Ile	Gly	Asp	Leu					
785	790					795							800							
Ala	Ser	His	Phe	Gly	Cys	Thr	Val	Gly	Leu	Lys	Asp	Ser	Val	Asn	Ala					
805							810							815						
Val	Val	Phe	Val	Ala	Leu	Gly	Thr	Ser	Ile	Pro	Asp	Thr	Phe	Ala	Ser					
820							825							830						
Lys	Val	Ala	Ala	Leu	Gln	Asp	Gln	Cys	Ala	Asp	Ala	Ser	Ile	Gly	Asn					
835							840							845						
Val	Thr	Gly	Ser	Asn	Ala	Val	Asn	Val	Phe	Leu	Gly	Leu	Gly	Val	Ala					
850							855							860						
Trp	Ser	Val	Ala	Ala	Val	Tyr	Trp	Ala	Val	Gln	Gly	Arg	Pro	Phe	Glu					
865	870					875							880							
Val	Arg	Thr	Gly	Thr	Leu	Ala	Phe	Ser	Val	Thr	Leu	Phe	Thr	Val	Phe					
885							890							895						
Ala	Phe	Val	Gly	Ile	Ala	Val	Leu	Leu	Tyr	Arg	Arg	Arg	Pro	His	Ile					
900							905							910						
Gly	Gly	Glu	Leu	Gly	Gly	Pro	Arg	Gly	Pro	Lys	Leu	Ala	Thr	Thr	Ala					
915							920							925						
Leu	Phe	Leu	Gly	Leu	Trp	Leu	Leu	Tyr	Ile											

930 935 940
 Ala Tyr Cys His Ile Arg Gly Phe
 945 950

<210> 2523
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 2523
 nnnattacct acgttcgcac cctgtcagga ttgcctaca ccgcatttgt cgtggatgtc
 60
 ttcagccgaa aaattgttgg tgttgctaca cgctcgacga tgcgtaccga tgcgctgccc
 120
 atggaggctt tggagcatgc gttaacgact gcagggcgaa ttcattggaaa ccagttaatt
 180
 caccatagcg atcggggcag ccagtacgtg tcaactgaagt attccaccgc gtttagcggaa
 240
 tccggaatcc gtccgagtgt ggggaacagtc ggcgattctt atgacaatgc tctagccgaa
 300
 acagtcaacg gtctctacaa ggcgggaactg attcatgccc aagggtccgtg gacgtcggtc
 360
 ggagaagtcg aattggccac cttgcggnnn nn
 392

<210> 2524
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 2524
 Xaa Ile Thr Tyr Val Arg Thr Leu Ser Gly Phe Ala Tyr Thr Ala Phe
 1 5 10 15
 Val Val Asp Val Phe Ser Arg Lys Ile Val Gly Val Ala Thr Arg Ser
 20 25 30
 Thr Met Arg Thr Asp Ala Leu Pro Met Glu Ala Leu Glu His Ala Leu
 35 40 45
 Thr Thr Ala Gly Arg Ile His Gly Asn Gln Leu Ile His His Ser Asp
 50 55 60
 Arg Gly Ser Gln Tyr Val Ser Leu Lys Tyr Ser Thr Ala Leu Ala Glu
 65 70 75 80
 Ser Gly Ile Arg Pro Ser Val Gly Thr Val Gly Asp Ser Tyr Asp Asn
 85 90 95
 Ala Leu Ala Glu Thr Val Asn Gly Leu Tyr Lys Ala Glu Leu Ile His
 100 105 110
 Ala Gln Gly Pro Trp Thr Ser Val Gly Glu Val Glu Leu Ala Thr Leu
 115 120 125
 Arg Xaa
 130

<210> 2525
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2525

acgcgtttctc gggcgagggc atcgacagatt tcgaatgcac ggtgatggcg gtgtgccgca
60
tccccctttga atacgtggtg ctgtcaccgc cgcgggaatc aagaaccgca cgttgcgcaa
120
atcgctgcgc tacgcaccaa cgtggtcggc aagatggttg tcagcggcga gccccgnaa
180
tgattcatat ctccgatatc agcacgacag gggcgctcatt ccgctctgca catcggcttg
240
gaagtcagcg gtgcgccccgc acgcctgcga tttcgggtga agacgcgcga ctaccattca
300
gaactggttg cgcgaacact cattcgcagc gagaagcccc cggatttgcc caacacctat
360
caatacggcg tggaattc
378

<210> 2526

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2526

Met	Ala	Val	Cys	Arg	Ile	Pro	Phe	Glu	Tyr	Val	Val	Leu	Ser	Pro	Pro
1				5					10					15	
Arg	Glu	Ser	Arg	Thr	Ala	Arg	Cys	Ala	Asn	Arg	Cys	Ala	Thr	His	Gln
			20					25					30		
Arg	Gly	Arg	Gln	Asp	Val	Gly	Gln	Arg	Arg	Ala	Pro	Xaa	Met	Ile	His
			35				40					45			
Ile	Ser	Asp	Ile	Ser	Thr	Thr	Gly	Ala	Ser	Phe	Arg	Ser	Ala	His	Arg
	50					55					60				
Leu	Gly	Ser	Gln	Arg	Cys	Ala	Arg	Thr	Pro	Ala	Ile	Ser	Gly	Glu	Asp
65					70					75				80	
Ala	Arg	Leu	Pro	Phe	Arg	Thr	Gly	Gly	Arg	Asn	Thr	His	Ser	Gln	Arg
				85					90					95	
Glu	Ala	Arg	Arg	Phe	Ala	Gln	His	Leu	Ser	Ile	Arg	Arg	Gly	Ile	
			100					105						110	

<210> 2527

<211> 305

<212> DNA

<213> Homo sapiens

<400> 2527

ntgggtcacct tccgaatggg acggcggccc aaacccgaga tcatggccag caaagagcag
60
cagatccaga gagacgacct tggagccagt cccagagca gcagccagcc agaccacggc
120
cgcctctccc cccagaagc tccgacagg cccaccatct ccacggcctc cgagacctca
180
gtgtacgtga cctggattcc ccgtgggaat ggtgggttcc caatccagtc cttccgtgtg
240
gagtacaaga agctaaagaa agtgggagac tggattcttg ccaccagcgc catcccccca
300

cgcgt
305

<210> 2528
<211> 101
<212> PRT
<213> Homo sapiens

<400> 2528
Xaa Val Thr Phe Arg Met Gly Arg Arg Pro Lys Pro Glu Ile Met Ala
1 5 10 15
Ser Lys Glu Gln Gln Ile Gln Arg Asp Asp Leu Gly Ala Ser Pro Gln
20 25 30
Ser Ser Ser Gln Pro Asp His Gly Arg Leu Ser Pro Pro Glu Ala Pro
35 40 45
Asp Arg Pro Thr Ile Ser Thr Ala Ser Glu Thr Ser Val Tyr Val Thr
50 55 60
Trp Ile Pro Arg Gly Asn Gly Gly Phe Pro Ile Gln Ser Phe Arg Val
65 70 75 80
Glu Tyr Lys Lys Leu Lys Lys Val Gly Asp Trp Ile Leu Ala Thr Ser
85 90 95
Ala Ile Pro Pro Arg
100

<210> 2529
<211> 387
<212> DNA
<213> Homo sapiens

<400> 2529
acgcgtctcc ccggtggtggg tcccgatccc ccggccggct ctgccactga agcctctccc
60
tgtgtcctcc gtgccccccg agtggcctgc tagcccgctc tcccacacag tctccttgat
120
gtgaagtgtc acccggtttg ctgcggcggtg tctccgccgt aacacgtgta taccggctca
180
gccatggcgg cggtgctgg gaaggctcct gcgtatggct ttgccatccg ggacccgggc
240
tttgctctgc aggggtgggc ttctgagcag aggaaggcca gaggtaacca ggtccatgca
300
cgtttgtgtc tttccacaat gtcgggcttt tatggatgct tttagtctca gtcacaaaag
360
ccatgagctc cacaggttcc tgaggga
387

<210> 2530
<211> 121
<212> PRT
<213> Homo sapiens

<400> 2530
Met Ala Phe Val Thr Glu Thr Lys Ser Ile His Lys Ser Pro Thr Leu
1 5 10 15
Trp Lys Asp Thr Asn Val His Gly Pro Gly Tyr Leu Trp Pro Ser Ser

```

                20                25                30
Ala Gln Lys Pro Thr Pro Ala Glu Gln Ser Pro Gly Pro Gly Trp Gln
      35                40                45
Ser His Thr Gln Glu Pro Ser Gln Gln Pro Pro Pro Trp Leu Ser Arg
      50                55                60
Tyr Thr Arg Val Thr Ala Glu Thr Arg Arg Ser Lys Pro Gly Asp Thr
      65                70                75                80
Ser His Gln Gly Asp Cys Val Gly Glu Arg Ala Ser Arg Pro Leu Gly
      85                90                95
Gly His Gly Gly His Arg Glu Arg Leu Gln Trp Gln Ser Arg Pro Gly
      100                105                110
Asp Arg Asp Pro Pro Arg Gly Asp Ala
      115                120

```

<210> 2531

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2531

```

tctagagata caaaaagtac tctatacact gagagacatc tggataaata caaagggtga
60
gctttccaac cagctgaaga tgacaagact aaacccaag tcgctgcagc tctgtgtcat
120
ctcatcagca gccctggaga tgacaaagat agtgctgagg gggaacagac ctctgtcatc
180
agttaaagat atgctagctt ttctttttct tccagacatt cctgaatcca gagaactttc
240
ctgtaatgcg tcaaatcctt taggtetcaa ttctttccct agagagacaa ggagcacagt
300
tcgttcccaa ggccccccat gcttggcgag ggcgtctctg ctttccaggc agggctcctgc
360
tgctccacc cacgtgcagg gaaaggaagg acgcgt
396

```

<210> 2532

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2532

```

Met Thr Arg Leu Asn Pro Lys Ser Leu Gln Leu Cys Val Ile Ser Ser
  1                5                10                15
Ala Ala Leu Glu Met Thr Lys Ile Val Leu Arg Gly Asn Arg Pro Ser
      20                25                30
Ser Ser Val Lys Asp Met Leu Ala Phe Leu Phe Leu Pro Asp Ile Pro
      35                40                45
Glu Ser Arg Glu Leu Ser Cys Asn Ala Ser Asn Pro Leu Gly Leu Asn
      50                55                60
Ser Phe Pro Arg Glu Thr Arg Ser Thr Val Arg Ser Gln Gly Pro Pro
      65                70                75                80
Cys Leu Ala Arg Ala Ser Leu Leu Ser Arg Gln Gly Pro Ala Ala Ser
      85                90                95
Thr His Val Gln Gly Lys Glu Gly Arg

```

100

105

<210> 2533
 <211> 495
 <212> DNA
 <213> Homo sapiens

<400> 2533
 ngccggccag atgtcccggt cgtgctggtg gccgggggct gtgcaggagt cctggcctgg
 60
 gctgtggcan ccccatgga cgtgatcaag tcgagactgc aggcagacgg gcagggccag
 120
 aggcgctacc ggggtctcct gcactgtatg gtgaccagcg ttcgagagga gggaccccg
 180
 gtcccttttca aggggctggt actcaattgc tgccgcgcct tccctgtcaa catggtggtc
 240
 ttcgtcgctt atgaggcagt gctgaggctc gcccggggtc tgctcacata gccggtcccc
 300
 acgcccagcg gccacccac cagcagctgc tggaggctcg agtggctgga ggaggcaagg
 360
 ggtagtgtgg ctgggttcgg gacccacacag ggccattgcc caggagaatg aggagcctcc
 420
 ctgcagtgtt gtcggccgag gcctgagctc gccctgccca gctactgacc tcaggctcgag
 480
 gggcccgcca gccat
 495

<210> 2534
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2534
 Xaa Arg Pro Asp Val Pro Gly Val Leu Val Ala Gly Gly Cys Ala Gly
 1 5 10 15
 Val Leu Ala Trp Ala Val Ala Xaa Pro Met Asp Val Ile Lys Ser Arg
 20 25 30
 Leu Gln Ala Asp Gly Gln Gly Gln Arg Arg Tyr Arg Gly Leu Leu His
 35 40 45
 Cys Met Val Thr Ser Val Arg Glu Glu Gly Pro Arg Val Leu Phe Lys
 50 55 60
 Gly Leu Val Leu Asn Cys Cys Arg Ala Phe Pro Val Asn Met Val Val
 65 70 75 80
 Phe Val Ala Tyr Glu Ala Val Leu Arg Leu Ala Arg Gly Leu Leu Thr
 85 90 95

<210> 2535
 <211> 1904
 <212> DNA
 <213> Homo sapiens

<400> 2535
 ncggcccggt aacgtggctg gttggaggag gtagatcacc ctttctgcgg gggacgattt
 60

cgtcggtggt aggctgctac catgagggtg aatcagaaca ccttgctgct ggggaagaag
120
gtggtccttg taccctacac ctcgagcat gtgccagca ggtaccacga gtggatgaaa
180
tcagaggagc tgcagcgttt gacagcctcg gagccgctga ccctggagca ggagtatgcc
240
atgcagtgca gctggcagga agatgcagac aagtgtacct tcattgtgct ggatgccgag
300
aagtggcagg ccagccagg cgccaccgaa gagagctgca tgggtgggaga cgtgaacctc
360
ttcctcacag atctagaaga cccaccttg ggggagatcg aggtcatgat tgcagagccc
420
agctgcaggg gtaaggcct tggcactgag gccgttctcg cgatgctgtc ttacggagtg
480
accacgctag gtctgaccaa gtttgaggct aaaattgggc aaggaaatga accaagcatc
540
cggatgttcc agaaacttca ctttgagcag gtggctacga gcagtgtttt tcaggagggtg
600
accctcagac tgacagtgag tgagtcagag catcagtggc ttctggagca gaccagccac
660
gtggaagaga agccttacag agatgggtcg gcagagccct gctgatggct gggccttgtg
720
ggcagccact ctgtgtgagc aggggtgttg gccatacac ttcaaagacc agagccctgc
780
actgggagag tgctcctggc ccaggctggg aatcacctt cgaggccctt cagactcttg
840
cggggcttgc tgtggcctcc ctccagctag tgggtgtggc gagcagactc cagggccagg
900
gccagttccc ttctccctc ccggccaaac ccagaccag actctaggaa gctggaatgg
960
agggcagggg tccatgggag atgtcgggat gaagggtggg gctggagggtg cagggggacc
1020
tggaacatgg atgggagtgg acaggccttt ctcttagag gccagagggtg ctgccctggc
1080
tgggagtga gctccaggca ctaccagctt tcctgatttt ccggtttggc ccatgtgaag
1140
agctaccacg agccccagcc tcacagtgtc cactcaaggg cagcttggtc ctcttgtcct
1200
gcagaggcag gctgggtgtga ccctgggaac ttgaccggg aacaacagg ggtccagagt
1260
gagtgtggc tggccctca acctagtgtc cgtcctctc tctcctggag ccagtcttga
1320
gtttaaaggc attagtgtta gatacagctc cttgtggctg gaaaacaccc ctctgctgat
1380
aaagctcagg gggcactgag gaagcagagg ccccttgggg gtgccctcct gaagagagcg
1440
tcaggccatc agctctgtcc ctctgggtgt cccacgtctg ttctcacc tccatctctg
1500
ggagcagctg cacctgactg gccacgagg ggcagtggag gcacaggctc aggggtggccg
1560
ggctacctg caccctatgg cttacaaagt agagtggcc cagtttctt ccacctgagg
1620
ggagcactct gactcctaac agtcttctt gccctgccat catctggggg ggtgggtgt
1680

caagaaaggc cgggcatgct ttctaaacac agccacagga ggcttgtagg gcattctcca
 1740
 ggtggggaaa cagtcttaga taagtaaggc gacttgctta aggcctccca gcacccttga
 1800
 tcttggagtc tcacagcaga ctgcatgtga acaactggaa ccgaaaacat gcctcagtat
 1860
 aaaacaaaca ttataaaacg aaaaaaaaaa aaaaaaaaaag tact
 1904

<210> 2536
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 2536
 Met Arg Leu Asn Gln Asn Thr Leu Leu Leu Gly Lys Lys Val Val Leu
 1 5 10 15
 Val Pro Tyr Thr Ser Glu His Val Pro Ser Arg Tyr His Glu Trp Met
 20 25 30
 Lys Ser Glu Glu Leu Gln Arg Leu Thr Ala Ser Glu Pro Leu Thr Leu
 35 40 45
 Glu Gln Glu Tyr Ala Met Gln Cys Ser Trp Gln Glu Asp Ala Asp Lys
 50 55 60
 Cys Thr Phe Ile Val Leu Asp Ala Glu Lys Trp Gln Ala Gln Pro Gly
 65 70 75 80
 Ala Thr Glu Glu Ser Cys Met Val Gly Asp Val Asn Leu Phe Leu Thr
 85 90 95
 Asp Leu Glu Asp Pro Thr Leu Gly Glu Ile Glu Val Met Ile Ala Glu
 100 105 110
 Pro Ser Cys Arg Gly Lys Gly Leu Gly Thr Glu Ala Val Leu Ala Met
 115 120 125
 Leu Ser Tyr Gly Val Thr Thr Leu Gly Leu Thr Lys Phe Glu Ala Lys
 130 135 140
 Ile Gly Gln Gly Asn Glu Pro Ser Ile Arg Met Phe Gln Lys Leu His
 145 150 155 160
 Phe Glu Gln Val Ala Thr Ser Ser Val Phe Gln Glu Val Thr Leu Arg
 165 170 175
 Leu Thr Val Ser Glu Ser Glu His Gln Trp Leu Leu Glu Gln Thr Ser
 180 185 190
 His Val Glu Glu Lys Pro Tyr Arg Asp Gly Ser Ala Glu Pro Cys
 195 200 205

<210> 2537
 <211> 509
 <212> DNA
 <213> Homo sapiens

<400> 2537
 acgcgttctc gtaaggacaa gcttgacgcc gaggtgcatg ccggtgaagg cccccccggg
 60
 gatgtcatcg tgctgcgggtt ttccggagcc atggcgaagc gtctgcctc agttatcctt
 120
 ccgctgctac tgctggactc ccccgctcatt gcgtggtggc ccttctccgg ccctgacaac
 180

ctcgctcgg accccatcgg agcccttgcg gaccgccgca tcaccgactc ggcagctgac
 240
 aaagatccgt gcaaagccct catacgccgt gcggctcacc taaccgaggg tgactccgac
 300
 ctgtgttggg ctgcgaccac cagctggaga gccctagctg cagcagcttt ggatcaacat
 360
 ccagcgaccg tcaagttcgc tcgggtagag tcagccgccg gtaatgcgcc ggcgatgctg
 420
 ctggcagcct ggctaggatt gcgtctcggc gtcccggctg agcgggtgac aaccgacgcg
 480
 cccggcatct ccgcgatcgt catgtcgac
 509

<210> 2538

<211> 169

<212> PRT

<213> Homo sapiens

<400> 2538

Thr	Arg	Ser	Arg	Lys	Asp	Lys	Leu	Asp	Ala	Glu	Val	His	Ala	Gly	Glu
1				5					10					15	
Gly	Thr	Pro	Gly	Asp	Val	Ile	Val	Leu	Arg	Phe	Ser	Gly	Ala	Met	Ala
			20					25					30		
Lys	Arg	Pro	Ala	Ser	Val	Ile	Leu	Pro	Leu	Leu	Leu	Ser	Asp	Ser	Pro
			35				40					45			
Val	Ile	Ala	Trp	Trp	Pro	Phe	Ser	Gly	Pro	Asp	Asn	Leu	Ala	Ser	Asp
	50					55					60				
Pro	Ile	Gly	Ala	Leu	Ala	Asp	Arg	Arg	Ile	Thr	Asp	Ser	Ala	Ala	Asp
65					70				75					80	
Lys	Asp	Pro	Cys	Lys	Ala	Leu	Ile	Arg	Arg	Ala	Ala	His	Leu	Thr	Glu
			85					90					95		
Gly	Asp	Ser	Asp	Leu	Cys	Trp	Ala	Arg	Thr	Thr	Ser	Trp	Arg	Ala	Leu
			100					105					110		
Ala	Ala	Ala	Ala	Leu	Asp	Gln	His	Pro	Ala	Thr	Val	Lys	Phe	Ala	Arg
			115				120					125			
Val	Glu	Ser	Ala	Ala	Gly	Asn	Ala	Pro	Ala	Met	Leu	Leu	Ala	Ala	Trp
	130					135					140				
Leu	Gly	Leu	Arg	Leu	Gly	Val	Pro	Val	Glu	Arg	Val	Thr	Thr	Asp	Ala
145					150				155					160	
Pro	Gly	Ile	Ser	Ala	Ile	Val	Met	Ser							
					165										

<210> 2539

<211> 453

<212> DNA

<213> Homo sapiens

<400> 2539

aagcttctac tgccgcgagc acgtcgtcca ccgtcgaggt catggttcta gtttgccgcg
 60
 tcgcgcatg acccgaggat agtgacgtgg gacaatggct acgtgcgttt tctcaacgag
 120
 cagccgaact acgacctgac gtatgacgac gtcttcatgg caccaaaccg ttctcgggtg
 180

ggggtcccgca tgaacgtcga cctcacgtca acagacgggc taggcactcc tctgcccctc
 240
 gtagtggeca atatgaccgc aatttccgga cgtcgcatgg cagagaccat cgccaggcgc
 300
 ggaggcattg ctgttctgcc ccaagatatc ccggcggatt tcgtcgcccg gtccattcgg
 360
 cgcgtaaaag atgcgcatac tcgattcgac accccagtca ccgtcaaccc gacaacgact
 420
 gtcggtgagg ccatgaactt gctcaacaag cgc
 453

<210> 2540

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2540

Phe	Ala	Ala	Ser	Arg	His	Asp	Pro	Arg	Ile	Val	Thr	Trp	Asp	Asn	Gly
1				5					10					15	
Tyr	Val	Arg	Phe	Leu	Asn	Glu	Gln	Pro	Asn	Tyr	Asp	Leu	Thr	Tyr	Asp
		20						25					30		
Asp	Val	Phe	Met	Ala	Pro	Asn	Arg	Ser	Ser	Val	Gly	Ser	Arg	Met	Asn
		35					40					45			
Val	Asp	Leu	Thr	Ser	Thr	Asp	Gly	Leu	Gly	Thr	Pro	Leu	Pro	Leu	Val
	50					55					60				
Val	Ala	Asn	Met	Thr	Ala	Ile	Ser	Gly	Arg	Arg	Met	Ala	Glu	Thr	Ile
65					70				75					80	
Ala	Arg	Arg	Gly	Gly	Ile	Ala	Val	Leu	Pro	Gln	Asp	Ile	Pro	Ala	Asp
			85					90					95		
Phe	Val	Ala	Arg	Ser	Ile	Arg	Arg	Val	Lys	Asp	Ala	His	Thr	Arg	Phe
		100						105					110		
Asp	Thr	Pro	Val	Thr	Val	Asn	Pro	Thr	Thr	Thr	Val	Gly	Glu	Ala	Met
		115					120					125			
Asn	Leu	Leu	Asn	Lys	Arg										
		130													

<210> 2541

<211> 564

<212> DNA

<213> Homo sapiens

<400> 2541

accggtctcc cacggagttc tgtttctca ggtactgcac tgtatacaac tctaaatgca
 60
 ccttgcattg aaccattgc agggcacacg cagtctacat gtatcccagg ttttatgctc
 120
 acagagcctg caatactccg tgtctggaat acgttatttg ctgcacacct cccagaggaa
 180
 catgtaacgt ctgtgtaaca tgctatcctg cacacatctg aaagaatctg tgtacacaac
 240
 actattatgc tgtgcacaca tttcctcata ttctgtgtag agagcacctc attttgact
 300
 caaatattcg gcttcataa caagttacat tgctcacatc ttaaaatatt cattacacgt
 360

gaaaccaccg catggtaccg acatccttct ggaatgtccc gcacagaggc tgatatatgt
 420
 gcacagttct cactgttctg cgtgcccagc ccctcacact ggacgcccac ctcacactct
 480
 tctgccaagg gagactttgg ttctccctt ccctgtgctg gctgtgegg ccacagtct
 540
 ctgcacgcca gcagcatgac gcgt
 564

<210> 2542
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2542
 Met Leu Cys Thr His Phe Leu Ile Phe Cys Val Glu Ser Thr Ser Phe
 1 5 10 15
 Cys Thr Gln Ile Phe Gly Phe His Asn Lys Leu His Cys Ser His Leu
 20 25 30
 Lys Ile Phe Ile Thr Arg Glu Thr Thr Ala Trp Tyr Arg His Pro Ser
 35 40 45
 Gly Met Ser Arg Thr Glu Ala Asp Ile Cys Ala Gln Phe Ser Leu Phe
 50 55 60
 Cys Val Pro Ser Pro Ser His Trp Thr Pro Thr Ser His Ser Ser Ala
 65 70 75 80
 Lys Gly Asp Phe Gly Ser Pro Leu Pro Cys Ala Gly Cys Ala Gly His
 85 90 95
 Ser Pro Leu His Ala Ser Ser Met Thr Arg
 100 105

<210> 2543
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 2543
 cgcctgaagg gggcggggaa aatggaatgg gggggaaggg cgcgggtggg gacatgctgg
 60
 aacgtgcccc tgctttctgc accacactgg atgactgaag gggaaggaac gagcgtctta
 120
 ccgctcctga tgagattttt gtttttgcct aacaaagaaa tgtgtatgaa tgcacgtctg
 180
 tttgcagggg cagggaggag gagggtcctt ggaatagctg ccgacaacag ctggaactcc
 240
 tgtctgggtc cccagctgg gctagagagg gcagtgatca tctgtccact ggacaggaag
 300
 gtttgcaaag ggctgtttgc ttactgggtc ccaattttta gccttctgaa gccctgtcc
 360
 aatggggccc agcaggcagc agtgctg
 387

<210> 2544
 <211> 122
 <212> PRT

<213> Homo sapiens

<400> 2544

```

Met Glu Trp Gly Gly Arg Ala Arg Val Gly Thr Cys Trp Asn Val Pro
 1             5             10             15
Met Leu Ser Ala Pro His Trp Met Thr Glu Gly Glu Gly Thr Ser Val
             20             25             30
Leu Pro Leu Leu Met Arg Phe Leu Phe Leu Pro Asn Lys Glu Met Cys
             35             40             45
Met Asn Ala Arg Leu Phe Ala Gly Ala Gly Arg Arg Arg Val Leu Gly
             50             55             60
Ile Ala Ala Asp Asn Ser Trp Asn Ser Cys Leu Gly Pro Pro Ala Gly
65             70             75             80
Leu Glu Arg Ala Val Ile Ile Cys Pro Leu Asp Arg Lys Val Cys Lys
             85             90             95
Gly Leu Phe Ala Tyr Trp Val Pro Ile Phe Ser Leu Leu Lys Pro Leu
             100            105            110
Ser Asn Gly Ala Gln Gln Ala Ala Val Leu
             115            120

```

<210> 2545

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2545

```

gcgattattt tcgtgctgcc cggacttattc atggtcgggt ggtggtcagg tttcccgtag
60
tggaccaccc tcgctatctg tctagtcggc ggcacccctcg gcgttatgta ctcgattccg
120
ctgcgtcggg cctcctgtac aggcctggat cttccctacc cggagggcgt cgcaggagct
180
gaggtgctca aagtaggcga ttccgctggt gccgccgagg ctaacaaggt gggctctgcga
240
gtcatcatcg tcggttctgt ggtctctgca gcgtacgccc tggtgtcgga tcttaagctt
300
gtgaagtcgg cgctgaccaa gcctttcaag acgggc
336

```

<210> 2546

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2546

```

Ala Ile Ile Phe Val Leu Pro Gly Leu Ile Met Val Gly Trp Trp Ser
 1             5             10             15
Gly Phe Pro Tyr Trp Thr Thr Leu Ala Ile Cys Leu Val Gly Gly Ile
             20             25             30
Leu Gly Val Met Tyr Ser Ile Pro Leu Arg Arg Ala Leu Val Thr Gly
             35             40             45
Ser Asp Leu Pro Tyr Pro Glu Gly Val Ala Gly Ala Glu Val Leu Lys
             50             55             60
Val Gly Asp Ser Ala Gly Ala Ala Glu Ala Asn Lys Val Gly Leu Arg

```

65		70		75		80									
Val	Ile	Ile	Val	Gly	Ser	Val	Val	Ser	Ala	Ala	Tyr	Ala	Leu	Leu	Ser
				85					90					95	
Asp	Leu	Lys	Leu	Val	Lys	Ser	Ala	Leu	Thr	Lys	Pro	Phe	Lys	Thr	Gly
			100					105					110		

<210> 2547

<211> 556

<212> DNA

<213> Homo sapiens

<400> 2547

```

acgcgtgcac acacacacac gcaggcgtac acgctcacia gtgcacacac acatatgagt
60
ttcccacaca tctcaccata tctctttctc tttacttttt aaagacaggg cacttgccct
120
tatggccaat aatattatgc ccaagctaca acattccgag tcaatcacia aggttataaa
180
cttcatttga actgaagacc acctgtaagc acgcagctca aatgtttctca cctagaaatt
240
caagtttgtg ttggaaagtg gacttaacgg tcaaagaaaa aggcctggcc aacttcagag
300
agggacaccc agccttgcta cgttgcggtg cattatgtgg tgctgtgcta tccatagaga
360
aagaggagat gaaaaagatt ctacaaagag agatcaaact gcaagaaagc acaaagattt
420
catcaccaca atatgaaggc ctcttggtga taaatgactt ttttaggtcc caataagaaa
480
taccatctat tctatctgga attattttat tagcttcaaa ttttattcta agattcatac
540
tatcagatca tctaga
556

```

<210> 2548

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2548

Met	Asn	Leu	Arg	Ile	Lys	Phe	Glu	Ala	Asn	Lys	Ile	Ile	Pro	Asp	Arg
1				5					10					15	
Ile	Asp	Gly	Ile	Ser	Tyr	Trp	Asp	Leu	Lys	Lys	Ser	Phe	Ile	Pro	Arg
			20					25					30		
Arg	Pro	Ser	Tyr	Cys	Gly	Asp	Glu	Ile	Phe	Val	Leu	Ser	Cys	Ser	Leu
		35				40					45				
Ile	Ser	Leu	Cys	Arg	Ile	Phe	Phe	Ile	Ser	Ser	Phe	Ser	Met	Asp	Ser
	50				55					60					
Thr	Ala	Pro	His	Asn	Asp	Thr	Gln	Arg	Ser	Arg	Ala	Gly	Cys	Pro	Ser
65				70				75					80		
Leu	Lys	Leu	Ala	Arg	Pro	Phe	Ser	Leu	Thr	Val	Lys	Ser	Thr	Phe	Gln
			85					90					95		
Thr	Gln	Leu	Glu	Phe	Leu	Gly	Glu	Asn	Ile						
		100						105							

<210> 2549
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 2549
 nnccagcctc tctccgaccg cgtacgtatt gaatttgata aagaagccaa cacggttggt
 60
 atcgatgata atggtgtcgg catgtctcgt gaagaagcca ttacaaactt aggtacgatt
 120
 gctaaatcgg gcacctcttc tttcttagag caattgagtg gcgatcagaa aaaagacagc
 180
 caacttattg gtcaattcgg tgtaggcttt tactctgctt tcatcggtgc tgataaagta
 240
 acagtagaaa cacgtcgcgc aggtgcgacg gaaaatgaag cggttcgctg ggtatctgat
 300
 ggttctggtg aatttactat tgagacgatc gataaagcga ctcgtggtac acgcattact
 360
 ttgcatctga aagcagatga aaaagatttc gcagacaact tccgtctacg ttcattagta
 420
 acaaaatatt ctgat
 435

<210> 2550
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2550
 Xaa Gln Pro Leu Ser Asp Arg Val Arg Ile Glu Phe Asp Lys Glu Ala
 1 5 10 15
 Asn Thr Val Val Ile Asp Asp Asn Gly Val Gly Met Ser Arg Glu Glu
 20 25 30
 Ala Ile Thr Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Ser Phe
 35 40 45
 Leu Glu Gln Leu Ser Gly Asp Gln Lys Lys Asp Ser Gln Leu Ile Gly
 50 55 60
 Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Ile Val Ala Asp Lys Val
 65 70 75 80
 Thr Val Glu Thr Arg Arg Ala Gly Ala Thr Glu Asn Glu Ala Val Arg
 85 90 95
 Trp Val Ser Asp Gly Ser Gly Glu Phe Thr Ile Glu Thr Ile Asp Lys
 100 105 110
 Ala Thr Arg Gly Thr Arg Ile Thr Leu His Leu Lys Ala Asp Glu Lys
 115 120 125
 Asp Phe Ala Asp Asn Phe Arg Leu Arg Ser Leu Val Thr Lys Tyr Ser
 130 135 140
 Asp
 145

<210> 2551
 <211> 403
 <212> DNA
 <213> Homo sapiens

<400> 2551

nngccggcca gcctcacatc agtctctccg ccccggggaa ggctcagcac tttaaatacga
 60
 ggactccact tctggggacg cctgggttcgt tcgcccacca ggcttaggct acgctccatg
 120
 ctccccagc aatctctgtc tacacctcct gcggcgccct gccctcctcc gacccctttc
 180
 cagccannaa gtccccccac cccttcagag aagcagcctc aaattccaga agtggaggct
 240
 ccagcctccc cgcgaggtag cagccccaca gtcttctggg agccattgtg gccagggacg
 300
 gcctctggac tgccaggctg ggttggggac caggaacat cggcttactc aggtgtgagg
 360
 gggcaggtct ggctgcccc aaagtggct ccacctgga can
 403

<210> 2552

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2552

Xaa	Pro	Ala	Ser	Leu	Thr	Ser	Val	Ser	Pro	Pro	Arg	Gly	Arg	Leu	Ser
1				5					10					15	
Thr	Leu	Asn	Arg	Gly	Leu	His	Phe	Trp	Gly	Arg	Leu	Val	Arg	Ser	Pro
			20					25					30		
Thr	Arg	Pro	Arg	Leu	Arg	Ser	Met	Leu	Pro	Gln	Gln	Ser	Leu	Ser	Thr
			35				40					45			
Pro	Pro	Ala	Ala	Pro	Cys	Pro	Pro	Pro	Thr	Pro	Phe	Gln	Pro	Xaa	Ser
			50				55				60				
Pro	Pro	Thr	Pro	Ser	Glu	Lys	Gln	Pro	Gln	Ile	Pro	Glu	Val	Glu	Ala
65					70				75					80	
Pro	Ala	Ser	Pro	Arg	Gly	Thr	Ser	Pro	Thr	Val	Phe	Trp	Glu	Pro	Leu
				85					90					95	
Trp	Pro	Gly	Thr	Ala	Ser	Gly	Leu	Pro	Gly	Trp	Val	Gly	Asp	Gln	Gly
			100				105						110		
Thr	Ser	Val	Tyr	Ser	Gly	Val	Arg	Gly	Gln	Val	Trp	Pro	Ala	Pro	Lys
		115					120					125			
Leu	Ala	Pro	Ser	Trp	Thr										
															130

<210> 2553

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2553

actagtgtcc ctataagaaa aggaaaggac caagacacag gaaagatgaa gcagagattg
 60
 gagagataca gcatggggcca aggagcactg ggagccagca gcagctggaa gaggcaggag
 120
 gcatcctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt
 180

gaagtctgcc tgagtgggca ggggcttctg cgcagcaccc agcaaggcca aggtggaagg
 240
 gaccctcctg gcccctgtcc tggctccacc ctcagctgct ggcaggtggg tcaccaggcc
 300
 tctgccccaa gaaactcctg caggcagctc tggacccctt gtcttacaca ccttctcact
 360
 gagcctgccg gcatcccagn
 380

<210> 2554

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2554

Met	Lys	Gln	Arg	Leu	Glu	Arg	Tyr	Ser	Met	Gly	Gln	Gly	Ala	Leu	Gly
1				5					10					15	
Ala	Ser	Ser	Ser	Trp	Lys	Arg	Gln	Glu	Ala	Ser	Ser	Leu	Asp	Arg	Thr
			20					25					30		
Gly	Cys	Tyr	Trp	Val	Ser	Leu	Leu	Ser	Trp	Lys	Arg	Arg	Glu	Val	Cys
		35					40					45			
Leu	Ser	Gly	Gln	Gly	Leu	Leu	Arg	Ser	Thr	Gln	Gln	Gly	Gln	Gly	Gly
	50					55				60					
Arg	Asp	Pro	Pro	Gly	Pro	Cys	Pro	Gly	Ser	Thr	Leu	Ser	Cys	Trp	Gln
65					70				75					80	
Val	Gly	His	Gln	Ala	Ser	Ala	Gln	Arg	Asn	Ser	Cys	Arg	Gln	Leu	Trp
			85					90					95		
Thr	Pro	Cys	Leu	Thr	His	Leu	Leu	Thr	Glu	Pro	Ala	Ser	Ile	Pro	
			100					105					110		

<210> 2555

<211> 368

<212> DNA

<213> Homo sapiens

<400> 2555

ntccggatgg aaaagtaaag accagcaata gccataaacg ccattaacac ataccatata
 60
 atgttggttaa tgctgcccgg tagttcgggtg gcattcttca tgggcaatag tttaatggga
 120
 gataacgcga ataatggtag tgtcgttcta gtgctcacag acctgggtcac ccaaatagaa
 180
 ggatttatat cctcccatat cctcattttt gtgctcggtg gcctcggcat tgtctttacc
 240
 gttgccactc gaggtgtaca gttccgcctc ttcgggcaca tgtggcacct catgctcgat
 300
 tcacggaagc aaaagggcac ctccctctcc agctctcaag cattcacagt gggctctgat
 360
 cacgcggn
 368

<210> 2556

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2556

```

Met Leu Leu Met Leu Pro Gly Ser Ser Val Ala Phe Phe Met Gly Asn
 1             5             10             15
Ser Leu Met Gly Asp Asn Ala Asn Asn Gly Ser Val Val Leu Val Leu
      20             25             30
Thr Asp Leu Val Thr Gln Ile Glu Gly Phe Ile Ser Ser His Ile Leu
      35             40             45
Ile Phe Val Leu Val Gly Leu Gly Ile Val Phe Thr Val Ala Thr Arg
      50             55             60
Gly Val Gln Phe Arg Leu Phe Gly His Met Trp His Leu Met Leu Asp
65             70             75             80
Ser Arg Lys Gln Lys Gly Thr Ser Leu Ser Ser Ser Gln Ala Phe Thr
      85             90             95
Val Gly Leu Asp His Ala
      100

```

<210> 2557

<211> 408

<212> DNA

<213> Homo sapiens

<400> 2557

```

atcactactc cagttggtga ggcagttctg ggtcgcatct taaatgtgat cggtaggccg
60
attgatgaga tgggccagct taacgcgaaa gaaaaatggg aaattcaccg tccagctcct
120
aaattcgaag accaagctgt taaagctgag atgttgatga ctggtattaa ggtagctgat
180
cttcttgac cttacgcaaa gggtagcaag atcggtctct tcggtggtgc gggcgtaggt
240
aaaacagttt tgattcaaga gttgattcgt aacatcgcta ctgagcacgg tggatactct
300
gtattcgtag gtgtaggcga gcgtactcgc gaaggtaacg atctttgggt tgagatgaaa
360
gaatcaggcg ttatcgcaaa gaccgcactt gtattcggtc agatgaat
408

```

<210> 2558

<211> 136

<212> PRT

<213> Homo sapiens

<400> 2558

```

Ile Thr Thr Pro Val Gly Glu Ala Val Leu Gly Arg Ile Leu Asn Val
 1             5             10             15
Ile Gly Glu Pro Ile Asp Glu Met Gly Pro Val Asn Ala Lys Glu Lys
      20             25             30
Trp Glu Ile His Arg Pro Ala Pro Lys Phe Glu Asp Gln Ala Val Lys
      35             40             45
Ala Glu Met Leu Met Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro
      50             55             60
Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

```

65		70		75		80									
Lys	Thr	Val	Leu	Ile	Gln	Glu	Leu	Ile	Arg	Asn	Ile	Ala	Thr	Glu	His
				85					90					95	
Gly	Gly	Tyr	Ser	Val	Phe	Ala	Gly	Val	Gly	Glu	Arg	Thr	Arg	Glu	Gly
			100					105					110		
Asn	Asp	Leu	Trp	Val	Glu	Met	Lys	Glu	Ser	Gly	Val	Ile	Ala	Lys	Thr
		115					120					125			
Ala	Leu	Val	Phe	Gly	Gln	Met	Asn								
		130					135								

<210> 2559

<211> 389

<212> DNA

<213> Homo sapiens

<400> 2559

tccttgaaga tgaacatctt tcggctgcaa actgaaaagg atttgaatcc tcagaaaaca

60

gcttttctga aagatcgact gaatgcaata caggaagagc attctaagga cctgaagctg

120

ttgcatctcg aagttatgaa tttgcgccag caactgagag ctgtaaaaga ggaagaagac

180

aaggcacaag atgaggtgca aagggtgact gccactctga agattgcctc gcagacaaag

240

aagaatgcag ccattattga agaggaactg aagaccacaa aacgtaaaat gaaccttaaa

300

attcaagagc ttctagagat gacctcatctt ccaagttggg tgaagaaaat aagaacctgc

360

aggatatctt tcaacaggaa catgaagaa

389

<210> 2560

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2560

Ser Leu Lys Met Asn Ile Phe Arg Leu Gln Thr Glu Lys Asp Leu Asn

1

Pro Gln Lys Thr Ala Phe Leu Lys Asp Arg Leu Asn Ala Ile Gln Glu

20

Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu

35

Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp

50

Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys

65

Lys Asn Ala Ala Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys

85

Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser

100

Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met

115

Lys

<210> 2561
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 2561
 nnactcacca ctgtgggttct actatgcctt ctgaccccggt cttggacttc aactgggaga
 60
 atgtggagcc atttgaacag gtcctctcttc tggagcatat tttcttctgt cacttgtaga
 120
 aaagctgtat tggattgtga ggcaatgaaa acaaatgaat tcccttctcc atgtttggac
 180
 tcaaagacta aggtgggttat gaaggggtcaa aatgtatcta tgttttgttc ccataagaac
 240
 aaatcactgc agatcaccta ttcattgttt cgacgtaaga cacacctggg aaccaggat
 300
 ggaaaagggtg aacctgcgat ttttaaccta agcatcacag aagcccatga atcaggcccc
 360
 taaaaatgca aagcccaagt taccagctgt tcaaaataca gtcgtgactt cagcttcacg
 420
 attgtcgac
 429

<210> 2562
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2562
 Xaa Leu Thr Thr Val Val Leu Leu Cys Leu Leu Thr Pro Ser Trp Thr
 1 5 10 15
 Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser
 20 25 30
 Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala
 35 40 45
 Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys
 50 55 60
 Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn
 65 70 75 80
 Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu
 85 90 95
 Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile
 100 105 110
 Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr
 115 120 125
 Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile Val Asp
 130 135 140

<210> 2563
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 2563

ggatcccaga cgagtgtctgg cagcagtatg ggggccgtgg gggcgacggc caccgtcagc
60
accccggtca ccatccagaa catgacctcc tcttatgtca ccatcacatc ccatgtcctt
120
aaggccttta ccctttggga acaggcagag gccctcacia ggaagaacia agaattcttt
180
gctcagctca gcacaaaagt gcgcgtgttg gccctcaaca gcagcctggt ggacctggtg
240
cactacacia ggcagggcct ccagcgg
267

<210> 2564

<211> 89

<212> PRT

<213> Homo sapiens

<400> 2564

Gly	Ser	Gln	Thr	Ser	Ala	Gly	Ser	Ser	Met	Gly	Ala	Val	Gly	Ala	Thr
1				5					10				15		
Ala	Thr	Val	Ser	Thr	Pro	Val	Thr	Ile	Gln	Asn	Met	Thr	Ser	Ser	Tyr
			20					25					30		
Val	Thr	Ile	Thr	Ser	His	Val	Leu	Lys	Ala	Phe	Thr	Leu	Trp	Glu	Gln
		35					40					45			
Ala	Glu	Ala	Leu	Thr	Arg	Lys	Asn	Lys	Glu	Phe	Phe	Ala	Gln	Leu	Ser
	50					55				60					
Thr	Lys	Val	Arg	Val	Leu	Ala	Leu	Asn	Ser	Ser	Leu	Val	Asp	Leu	Val
65					70				75					80	
His	Tyr	Thr	Arg	Gln	Gly	Leu	Gln	Arg							
					85										

<210> 2565

<211> 333

<212> DNA

<213> Homo sapiens

<400> 2565

cttcgcactg ctccgcgagt tcttggggga gtgagcacag cgcgtaagct cagccacgtg
60
tggttcgaat tcgattcctt ggtcaatgcc cgtgacgtgg gcggaatccc caccocgat
120
gggcgggtga aatcccagcg actgatccgc agcgacaacc tgcaggccct caccgaggcc
180
gacatgcgcc agttgcagca actcgggtgc tccgatgtgg tcgatctgcg ttccacctat
240
gaggtggcca gcgagggccg ggggccgctg accgggcgtg gggtgaccat ccaccccat
300
tccttctgc ccgaccagca cgccaatgtg cac
333

<210> 2566

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2566

```

Leu Arg Thr Ala Pro Arg Val Leu Gly Gly Val Ser Thr Ala Arg Lys
 1           5           10           15
Leu Ser His Val Trp Phe Glu Phe Asp Ser Leu Val Asn Ala Arg Asp
      20           25           30
Val Gly Gly Ile Pro Thr Pro Asp Gly Pro Val Lys Ser Gln Arg Leu
      35           40           45
Ile Arg Ser Asp Asn Leu Gln Ala Leu Thr Glu Ala Asp Ile Ala Gln
      50           55           60
Leu Gln Gln Leu Gly Val Ser Asp Val Val Asp Leu Arg Ser Thr Tyr
65           70           75           80
Glu Val Ala Ser Glu Gly Pro Gly Pro Leu Thr Gly Arg Gly Val Thr
      85           90           95
Ile His Pro His Ser Phe Leu Pro Asp Gln His Ala Asn Val His
      100           105           110

```

<210> 2567

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2567

```

ngaattcaaa ctggtgttcg tatgggccat aagcaaggta catatacgat gcgtttttaga
60
agccagttca cagatcaacg tctattcgga accgatcaat ttagtattgg tgggcgctat
120
tctgtacgag gtttttagtgg agaagaaacc ttaagagggtg actcggggcta ttatgtacaa
180
aatgaatggg cattaccatt tagaaaacaa caaattactc catatgtagg gatagatatt
240
ggacatgtat gggggccatc tacagaaact caattaggtg ataccttaat tgggtggtgta
300
gttggtgtac gtggtatggt tggtgacgat gtaaactatg atgtatcact aggaacacca
360
attaagaaac cagaaggttt tgatacagat acgcgt
396

```

<210> 2568

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2568

```

Xaa Ile Gln Thr Gly Val Arg Met Gly His Lys Gln Gly Thr Tyr Thr
 1           5           10           15
Met Arg Phe Arg Ser Gln Phe Thr Asp Gln Arg Leu Phe Gly Thr Asp
      20           25           30
Gln Phe Ser Ile Gly Gly Arg Tyr Ser Val Arg Gly Phe Ser Gly Glu
      35           40           45
Glu Thr Leu Arg Gly Asp Ser Gly Tyr Tyr Val Gln Asn Glu Trp Ala
      50           55           60
Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

```

65 70 75 80
 Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
 85 90 95
 Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
 100 105 110
 Tyr Asp Val Ser Leu Gly Thr Pro Ile Lys Lys Pro Glu Gly Phe Asp
 115 120 125
 Thr Asp Thr Arg
 130

<210> 2569
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 2569
 cttgctgctg gtgctgatgt gtcacatgatt ggccagttcg gcgtcggttt ctactctgcc
 60
 tacctcgtcg ccgatagagt tgcctgacc accaagcaca acgatgacga gcagtacgtg
 120
 tgggagtccc aagcgggagg gtcgttcact gttactcgtg acacgtcagg ggagcagctt
 180
 ggcaggggca ctaagatcac actgttcctc aaggacgac agctggagta ccttgaggag
 240
 cgctgcctca aggatctggt caagaagcac tctgagttca tcagctaccc catctccctg
 300
 tggactgaaa agacaacaga gaaggaaatt
 330

<210> 2570
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 2570
 Leu Ala Ala Gly Ala Asp Val Ser Met Ile Gly Gln Phe Gly Val Gly
 1 5 10 15
 Phe Tyr Ser Ala Tyr Leu Val Ala Asp Arg Val Val Val Thr Thr Lys
 20 25 30
 His Asn Asp Asp Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser
 35 40 45
 Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
 50 55 60
 Lys Ile Thr Leu Phe Leu Lys Asp Asp Gln Leu Glu Tyr Leu Glu Glu
 65 70 75 80
 Arg Arg Leu Lys Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr
 85 90 95
 Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
 100 105 110

<210> 2571
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 2571

gaattcgcca atgttttctc cggtatgggc tccacagtaa cccttatcgg ccgctcccct
60
gtgctcctta aacatctcga taatgaacta tctgagctct ttactgagat cgctcgggag
120
aaatgggatg tccgttttagg gcagggaaacg acagctatcg accaggtgga gaagcagcgt
180
gaagatgggt cttcctactt cgaaaccacc attacatttg aagacggcag cactgttacc
240
gggtgacgcat tcctagttgc taccggacgt acccctaaca ccgaccgcct tggcctcgac
300
aatggttccg gtgtgaaggt tgaaagggga cgcgt
335

<210> 2572

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2572

Glu	Phe	Ala	Asn	Val	Phe	Ser	Gly	Met	Gly	Ser	Thr	Val	Thr	Leu	Ile
1				5					10					15	
Gly	Arg	Ser	Pro	Val	Leu	Leu	Lys	His	Leu	Asp	Asn	Glu	Leu	Ser	Glu
			20					25					30		
Leu	Phe	Thr	Glu	Ile	Ala	Arg	Glu	Lys	Trp	Asp	Val	Arg	Leu	Gly	Gln
		35					40					45			
Gly	Thr	Thr	Ala	Ile	Asp	Gln	Val	Glu	Lys	Gln	Arg	Glu	Asp	Gly	Ser
	50					55					60				
Ser	Tyr	Phe	Glu	Thr	Thr	Ile	Thr	Phe	Glu	Asp	Gly	Ser	Thr	Val	Thr
65					70					75				80	
Gly	Asp	Ala	Phe	Leu	Val	Ala	Thr	Gly	Arg	Thr	Pro	Asn	Thr	Asp	Arg
			85					90					95		
Leu	Gly	Leu	Asp	Asn	Gly	Ser	Gly	Val	Lys	Val	Glu	Arg	Gly	Arg	
			100					105					110		

<210> 2573

<211> 460

<212> DNA

<213> Homo sapiens

<400> 2573

gtcgacaagt accggggcat tgtggttatg gggacggtag atctgggccg tctcgtcagg
60
gccgatcca taccggaccg ttctcgtcagg gtggtcggac atcgacgaca ccgcagatgc
120
cgagacgacg ttgatacgtc caccggcgcg gtccgtgatc cacgccgtcg tcgccgttgc
180
cgccaactggc acgatgaggg ccatcaccga gaagagaacg gccaccactc gcagaccacc
240
tcgtcccaga agagcgagga cgaaggcgat gacggcgatg accagagccg gtacagccaa
300
cgatcccacc agaacggagg agatgaaggt gagggcattg tgtgagggga ggatcgcggc
360

cactgaccac gccagtaccg gcaggggtcag gatcagcccg acgagaccgg aagtgatgcg
 420
 tagccaggaa tgacgggagg ttttcgtgtc agccacgcgt
 460

<210> 2574
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2574
 Met Gly Thr Val Asp Leu Gly Arg Leu Val Arg Ala Gly Ser Ile Pro
 1 5 10 15
 Asp Arg Phe Val Arg Val Val Gly His Arg Arg His Arg Arg Cys Arg
 20 25 30
 Asp Asp Val Asp Thr Ser Thr Gly Ala Val Arg Asp Pro Arg Arg Arg
 35 40 45
 Arg Arg Cys Arg His Trp His Asp Glu Gly His His Arg Glu Glu Asn
 50 55 60
 Gly His His Ser Gln Thr Thr Ser Ser Gln Lys Ser Glu Asp Glu Gly
 65 70 75 80
 Asp Asp Gly Asp Asp Gln Ser Arg Tyr Ser Gln Arg Ser His Gln Asn
 85 90 95
 Gly Gly Asp Glu Gly Glu Gly Ile Val
 100 105

<210> 2575
 <211> 3954
 <212> DNA
 <213> Homo sapiens

<400> 2575
 nngacagggg ggaagggagg ggagccagca gggaggagga ggccagggcc cgccccacag
 60
 ccactctcgc gcctccgaac agccacaggg gcaaagccct gtcaccccca ggatccggtc
 120
 atcagggaaa gaggacaggg agaccagaag agggccagct gggacgaggg ggcggacgcc
 180
 caggaggcaa cttctgagac gcagctcctg agaggggcag ggaccaggcg cgggaggcca
 240
 gagggggcac agagaacaaa cccctcaga agtgaagagg agagcggaag gaaccgagag
 300
 gggacggaca ggagctgagg aggaaagagg aggggagagg ggtcaggcca ggcagccaag
 360
 gagaagacgt gtggccgggg gctatcagaa ggaaactggg acggacgggc cgggctcggg
 420
 ctgtcctgtg gagcagcagc atccccgggg ccggcagagg cgccagtggc tgggcgggat
 480
 gagtctctga gggccactgt ggagcgcccc gccatggccc cccgcaccct ctggagctgc
 540
 tacctctgct gcctgctgac ggcagctgca ggggcccga gctaccctcc tcgaggtttc
 600
 agcctctaca caggttccag tggggccctc agccccgggg ggccccaggc ccagattgcc
 660

```

ccccggccag ccagccgcca caggaactgg tgtgcctacg tggtagaccg gacagtgagc
720
tgtgtccttg aggatggagt ggagacatat gtcaagtacc agccttgtgc ctggggccag
780
ccccagtgtc cccaaagcat catgtaccgc cgcttcctcc gccctcgcta ccgtgtggcc
840
tacaagacag tgaccgacat ggagtggagg tgctgtcagg gttatggggg cgatgactgt
900
gctgagagtc ccgctccagc gctggggcct gcgtcttcca caccacggcc cctggcccgg
960
cctgcccgcc ccaacctctc tggctccagt gcaggcagcc ccctcagtgg actgggggga
1020
gaaggtcctg gggagtcaga gaaggtgcag cagctggagg aacaggtgca gagcctgacc
1080
aaggagctgc aaggcctgcg gggcgtcctg caaggactga gcgggcgctt ggcagaggat
1140
gtgcagaggg ctgtggagac ggccttcaac gggaggcagc agccagctga cgcggctgcc
1200
cgccctgggg tgcataaaac cctcaatgag atccagcacc agctgcagct cctggacacc
1260
cgcgtctcca cccacgacca ggagctgggt cacctcaaca accatcatgg cggcagcagc
1320
agcagtgggg gcagcagggc cccagcccca gcctcagccc ctccggggcc cagtgaggag
1380
ctgctgcggc agctggagca gcggttgtag gagtcctgct ccgtgtgcct ggccgggcta
1440
gatggcttcc gccggcagca gcaggaggac agggagcggc tgcgagcgat ggagaagctg
1500
ctggcctcgg tggaggagcg gcaacggcac ctgcagggc tggcgggtggg ccgcaggccc
1560
cctcaggaat gctgctctcc agagctgggc cggcgactgg cagagctgga gcgcaggctg
1620
gatgtcgtgg ccggctcagt gacagtgtct agtgggcggc gaggcacaga gctgggagga
1680
gccgcggggc agggaggcca ccccccaggc tacaccagct tggcctcccg cctgtctcgc
1740
ctggaggacc gcttcaactc caccctgggc ccttcggagg agcaggagga gagctggcct
1800
ggggctcctg gggggctgag ccactggctg cctgctgccc ggggcccact agagcagttg
1860
ggggggctgc tggccaatgt gagcggggag ctgggggggc ggttgatct gttggaggag
1920
caggtggcag gggccatgca ggcattcgcc cagctctgct ctggggcccc tggggagcag
1980
gactctcaag tcagcgagat cctcagtgcc ttggagcgca gggctgctgga cagtgagggg
2040
cagctgcggc tgggtgggctc cggcctgcac acgggtggaag cagcggggga ggcccggcag
2100
gccacgctgg agggattaca agaggttgtg ggccggctcc aggatcgtgt ggatgccag
2160
gatgagacag ctgcagagtt cactactcgg ctgaatctca ctgcggcccg gctaggccaa
2220
ctggaggggc tgctgcaggc ccatggggat gagggtgtg gggcctgtgg cggagtccaa
2280

```

gaggaactag gccgccttcg ggatggtgtg gagcgctgct cctgccccct gttgcctcct
2340
cggggtcctg gggctggtcc aggtgttggg ggcccaagcc gtgggccccct ggacggcttc
2400
agcgtgtttg ggggcagctc aggctcagcc ctgcaggccc tgcaaggaga gctctctgag
2460
gttattctca gcttcagctc cctcaatgac tcaactgaatg agctccagac cactgtggag
2520
ggccaggggcg ctgatctggc tgacctgggg gcaaccaagg accgtatcat ttctgagatt
2580
aacaggctgc agcaggaggc cacagagcat gctacagaga gtgaagagcg cttccgaggc
2640
ctagaggagg gacaagcaca ggccggccag tgccccagct tagagggggcg attgggcccgt
2700
cttgagggtg tctgtgaacg gttggacact gtggctgggg gactgcaggg cctgcgcgag
2760
ggcctttcca gacacgtggc tgggctctgg gctgggctcc gggaaaccaa caccaccagc
2820
cagatgcagg cagccctgct ggagaagctg gtcgggggac aggcgggcct gggcaggcgg
2880
ctgggtgccc ttaacagctc cctgcagctc ctggaggacc gtctgcacca gctcagcctg
2940
aaggacctca ctgggcctgc aggagaggct gggccccag ggccctctgg gctgcaggga
3000
ccccaggcc ctgctggacc tccaggatca ccaggcaagg acgggcaaga gggccccatc
3060
gggccaccag gtccctcaagg tgaacaggga gtggaggggg caccagcagc ccctgtgccc
3120
caagtggcat tttcagctgc tctgagtttg ccccggctctg aaccaggcac ggtcccttc
3180
gacagagtcc tgctcaatga tggaggctat tatgatccag agacaggcgt gttcacagcg
3240
ccactggctg gacgctactt gctgagcgcg gtgctgactg ggcaccggca cgagaaagtg
3300
gaggccgtgc tgtcccgtc caaccagggc gtggcccgcg tagactccgg tggctacgag
3360
cctgagggcc tggagaataa gccggtggcc gagagccagc ccagcccggg caccctgggc
3420
gtcttcagcc tcactcctgcc gctgcaggcc ggggacacgg tctgcgtcga cctggtcatg
3480
gggcagctgg cgcactcgga ggagccgctc accatcttca gcggggccct gctctatggg
3540
gacccagagc ttgaacacgc gtagactggg gtcccgcccg acgtgtctac gtcggctgaa
3600
gagacagcgg gggcgggcgg ctctgggggt ctgcctgag acggggcacc tagccctggg
3660
cgagcgccgc acccgggccc gcagcggcac cgcgccaga gcggcctctc cccacgccc
3720
gggcgcgccg gctcaggag gctcggggcc gccatgcag acttttgccc tggcgcgac
3780
cccaagaac ccctccaggg ccggcctgcg gaggagccga tcctcgcacc ctccgctccc
3840
tccactggcc ctccaggctg attccctggg ctccaggctc ccccgcgcg ggcgcgccc
3900

ccgccataact aaacgatcga ggaataaaga cacttggttt ttctaaaaaa aact
3954

<210> 2576

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 2576

Met	Ala	Pro	Arg	Thr	Leu	Trp	Ser	Cys	Tyr	Leu	Cys	Cys	Leu	Leu	Thr
1				5					10					15	
Ala	Ala	Ala	Gly	Ala	Ala	Ser	Tyr	Pro	Pro	Arg	Gly	Phe	Ser	Leu	Tyr
			20					25					30		
Thr	Gly	Ser	Ser	Gly	Ala	Leu	Ser	Pro	Gly	Gly	Pro	Gln	Ala	Gln	Ile
		35					40					45			
Ala	Pro	Arg	Pro	Ala	Ser	Arg	His	Arg	Asn	Trp	Cys	Ala	Tyr	Val	Val
	50					55					60				
Thr	Arg	Thr	Val	Ser	Cys	Val	Leu	Glu	Asp	Gly	Val	Glu	Thr	Tyr	Val
65					70					75					80
Lys	Tyr	Gln	Pro	Cys	Ala	Trp	Gly	Gln	Pro	Gln	Cys	Pro	Gln	Ser	Ile
				85					90					95	
Met	Tyr	Arg	Arg	Phe	Leu	Arg	Pro	Arg	Tyr	Arg	Val	Ala	Tyr	Lys	Thr
			100					105					110		
Val	Thr	Asp	Met	Glu	Trp	Arg	Cys	Cys	Gln	Gly	Tyr	Gly	Gly	Asp	Asp
		115					120					125			
Cys	Ala	Glu	Ser	Pro	Ala	Pro	Ala	Leu	Gly	Pro	Ala	Ser	Ser	Thr	Pro
	130					135					140				
Arg	Pro	Leu	Ala	Arg	Pro	Ala	Arg	Pro	Asn	Leu	Ser	Gly	Ser	Ser	Ala
145					150					155					160
Gly	Ser	Pro	Leu	Ser	Gly	Leu	Gly	Gly	Glu	Gly	Pro	Gly	Glu	Ser	Glu
				165					170					175	
Lys	Val	Gln	Gln	Leu	Glu	Glu	Gln	Val	Gln	Ser	Leu	Thr	Lys	Glu	Leu
			180					185					190		
Gln	Gly	Leu	Arg	Gly	Val	Leu	Gln	Gly	Leu	Ser	Gly	Arg	Leu	Ala	Glu
		195					200				205				
Asp	Val	Gln	Arg	Ala	Val	Glu	Thr	Ala	Phe	Asn	Gly	Arg	Gln	Gln	Pro
	210					215					220				
Ala	Asp	Ala	Ala	Ala	Arg	Pro	Gly	Val	His	Glu	Thr	Leu	Asn	Glu	Ile
225					230					235					240
Gln	His	Gln	Leu	Gln	Leu	Leu	Asp	Thr	Arg	Val	Ser	Thr	His	Asp	Gln
			245						250					255	
Glu	Leu	Gly	His	Leu	Asn	Asn	His	His	Gly	Gly	Ser	Ser	Ser	Ser	Gly
		260						265					270		
Gly	Ser	Arg	Ala	Pro	Ala	Pro	Ala	Ser	Ala	Pro	Pro	Gly	Pro	Ser	Glu
	275						280					285			
Glu	Leu	Leu	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Glu	Ser	Cys	Ser	Val
	290					295					300				
Cys	Leu	Ala	Gly	Leu	Asp	Gly	Phe	Arg	Arg	Gln	Gln	Glu	Asp	Arg	
305					310					315				320	
Glu	Arg	Leu	Arg	Ala	Met	Glu	Lys	Leu	Leu	Ala	Ser	Val	Glu	Glu	Arg
			325						330					335	
Gln	Arg	His	Leu	Ala	Gly	Leu	Ala	Val	Gly	Arg	Arg	Pro	Pro	Gln	Glu
		340						345					350		
Cys	Cys	Ser	Pro	Glu	Leu	Gly	Arg	Arg	Leu	Ala	Glu	Leu	Glu	Arg	Arg

			355					360					365			
Leu	Asp	Val	Val	Ala	Gly	Ser	Val	Thr	Val	Leu	Ser	Gly	Arg	Arg	Gly	
	370					375					380					
Thr	Glu	Leu	Gly	Gly	Ala	Ala	Gly	Gln	Gly	Gly	His	Pro	Pro	Gly	Tyr	
385					390					395					400	
Thr	Ser	Leu	Ala	Ser	Arg	Leu	Ser	Arg	Leu	Glu	Asp	Arg	Phe	Asn	Ser	
				405					410					415		
Thr	Leu	Gly	Pro	Ser	Glu	Glu	Gln	Glu	Glu	Ser	Trp	Pro	Gly	Ala	Pro	
			420					425					430			
Gly	Gly	Leu	Ser	His	Trp	Leu	Pro	Ala	Ala	Arg	Gly	Arg	Leu	Glu	Gln	
		435					440					445				
Leu	Gly	Gly	Leu	Leu	Ala	Asn	Val	Ser	Gly	Glu	Leu	Gly	Gly	Arg	Leu	
	450					455					460					
Asp	Leu	Leu	Glu	Glu	Gln	Val	Ala	Gly	Ala	Met	Gln	Ala	Cys	Gly	Gln	
465					470					475					480	
Leu	Cys	Ser	Gly	Ala	Pro	Gly	Glu	Gln	Asp	Ser	Gln	Val	Ser	Glu	Ile	
				485					490					495		
Leu	Ser	Ala	Leu	Glu	Arg	Arg	Val	Leu	Asp	Ser	Glu	Gly	Gln	Leu	Arg	
			500					505					510			
Leu	Val	Gly	Ser	Gly	Leu	His	Thr	Val	Glu	Ala	Ala	Gly	Glu	Ala	Arg	
		515					520					525				
Gln	Ala	Thr	Leu	Glu	Gly	Leu	Gln	Glu	Val	Val	Gly	Arg	Leu	Gln	Asp	
	530					535					540					
Arg	Val	Asp	Ala	Gln	Asp	Glu	Thr	Ala	Ala	Glu	Phe	Thr	Leu	Arg	Leu	
545					550					555					560	
Asn	Leu	Thr	Ala	Ala	Arg	Leu	Gly	Gln	Leu	Glu	Gly	Leu	Leu	Gln	Ala	
				565					570					575		
His	Gly	Asp	Glu	Gly	Cys	Gly	Ala	Cys	Gly	Gly	Val	Gln	Glu	Glu	Leu	
			580					585				590				
Gly	Arg	Leu	Arg	Asp	Gly	Val	Glu	Arg	Cys	Ser	Cys	Pro	Leu	Leu	Pro	
		595					600					605				
Pro	Arg	Gly	Pro	Gly	Ala	Gly	Pro	Gly	Val	Gly	Gly	Pro	Ser	Arg	Gly	
	610					615					620					
Pro	Leu	Asp	Gly	Phe	Ser	Val	Phe	Gly	Gly	Ser	Ser	Gly	Ser	Ala	Leu	
625					630					635					640	
Gln	Ala	Leu	Gln	Gly	Glu	Leu	Ser	Glu	Val	Ile	Leu	Ser	Phe	Ser	Ser	
				645					650					655		
Leu	Asn	Asp	Ser	Leu	Asn	Glu	Leu	Gln	Thr	Thr	Val	Glu	Gly	Gln	Gly	
			660					665				670				
Ala	Asp	Leu	Ala	Asp	Leu	Gly	Ala	Thr	Lys	Asp	Arg	Ile	Ile	Ser	Glu	
	675						680					685				
Ile	Asn	Arg	Leu	Gln	Gln	Glu	Ala	Thr	Glu	His	Ala	Thr	Glu	Ser	Glu	
	690															

```

785              790              795              800
Glu Asp Arg Leu His Gln Leu Ser Leu Lys Asp Leu Thr Gly Pro Ala
              805              810              815
Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Pro Gly
              820              825              830
Pro Ala Gly Pro Pro Gly Ser Pro Gly Lys Asp Gly Gln Glu Gly Pro
              835              840              845
Ile Gly Pro Pro Gly Pro Gln Gly Glu Gln Gly Val Glu Gly Ala Pro
              850              855              860
Ala Ala Pro Val Pro Gln Val Ala Phe Ser Ala Ala Leu Ser Leu Pro
865              870              875              880
Arg Ser Glu Pro Gly Thr Val Pro Phe Asp Arg Val Leu Leu Asn Asp
              885              890              895
Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu Ala
              900              905              910
Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu Lys
              915              920              925
Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val Asp
930              935              940
Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu
945              950              955              960
Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro
              965              970              975
Leu Gln Ala Gly Asp Thr Val Cys Val Asp Leu Val Met Gly Gln Leu
              980              985              990
Ala His Ser Glu Glu Pro Leu Thr Ile Phe Ser Gly Ala Leu Leu Tyr
              995              1000              1005
Gly Asp Pro Glu Leu Glu His Ala
1010              1015

```

<210> 2577

<211> 343

<212> DNA

<213> Homo sapiens

<400> 2577

```

acgcgtgaag ggggagggtc atggcctcct gggcttcaag gaggagctgg ggctgggggtg
60

```

```

ggggcgtggg gcattcatcc ccggccgcag ctgatctgga gccatctgta gcgaaatgct
120

```

```

tgctgagcaa attacgaggg tcaacaggag cagggcagac gttctccca cctgctggcc
180

```

```

agtgttcctt cggctaccgt gcactcagcc ccacagtgac ccctgagtgg ataccggccc
240

```

```

tgcttgcctt gggctctcaa tgggggctcg gggcctcaca gggccagcac gagccacttg
300

```

```

ccagggtctc caacagaccc tgagcctggc agtccctggg ccc
343

```

<210> 2578

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2578

```

Met Ala Ser Trp Ala Ser Arg Arg Ser Trp Gly Trp Gly Gly Gly Val
 1           5           10           15
Val His Ser Ser Pro Ala Ala Ala Asp Leu Glu Pro Ser Val Ala Lys
          20           25           30
Cys Leu Leu Ser Lys Leu Arg Gly Ser Thr Gly Ala Gly Gln Thr Leu
          35           40           45
Leu Pro Pro Ala Gly Gln Cys Ser Leu Gly Tyr Arg Ala Leu Ser Pro
          50           55           60
Thr Val Thr Pro Glu Trp Ile Pro Ala Leu Pro Ala Leu Gly Ser Gln
65           70           75           80
Trp Gly Leu Gly Ala Ser Gln Gly Gln His Glu Pro Leu Ala Arg Val
          85           90           95
Ser Asn Arg Pro
          100

```

<210> 2579

<211> 420

<212> DNA

<213> Homo sapiens

<400> 2579

```

ntcatgatct tcagaagctg tattaatttg gccgcattta tcatcatagt ttttcctat
60
ggaagcatgt tttatagtgt tcatcaaagt gccataacag caactgaaat acggaatcaa
120
gttaaaaaag agatgatcct tgccaaacgt tttttcttta tagtatttac tgatgcatta
180
tgctggatac ccatttttgt agtgaaatct ctttcactgc ttcaggtaga aataccaggt
240
accataacct cttgggtagt gatttttatt ctgcccatta acagtgcttt gaaccaatt
300
ctctatactc tgaccacaag accatttaaa gaaatgattc atcggttttg gtataactac
360
agacaaagaa aatctatgga cagcaaaggt cagaaaacag aggctggagt gtgctcgca
420

```

<210> 2580

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2580

```

Xaa Met Ile Phe Arg Ser Cys Ile Asn Leu Ala Ala Phe Ile Ile Ile
 1           5           10           15
Val Phe Ser Tyr Gly Ser Met Phe Tyr Ser Val His Gln Ser Ala Ile
          20           25           30
Thr Ala Thr Glu Ile Arg Asn Gln Val Lys Lys Glu Met Ile Leu Ala
          35           40           45
Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
          50           55           60
Ile Phe Val Val Lys Phe Leu Ser Leu Leu Gln Val Glu Ile Pro Gly
65           70           75           80
Thr Ile Thr Ser Trp Val Val Ile Phe Ile Leu Pro Ile Asn Ser Ala

```


				85				90					95		
Leu	Asn	Pro	Ile	Leu	Tyr	Thr	Leu	Thr	Thr	Arg	Pro	Phe	Lys	Glu	Met
			100					105					110		
Ile	His	Arg	Phe	Trp	Tyr	Asn	Tyr	Arg	Gln	Arg	Lys	Ser	Met	Asp	Ser
		115					120					125			
Lys	Gly	Gln	Lys	Thr	Glu	Ala	Gly	Val	Cys	Ser	Arg				
	130					135					140				

```
<210> 2581
<211> 459
<212> DNA
<213> Homo sapiens
```

```

<400> 2581
atgctgtttt cggccactat gccggccccg attatggccc tagcccggtc ccaactgcgt
60
cgtccggtgc acgtccgcgc cgaaggagcc gacaccaga ccaagggtgc cgacaccag
120
cagtttgtat accaggccca ttccctcgac aagattgaga tcattggacg cattctgcag
180
gccaacgacg tcgaaaaggc cattatcttc tgccgcacca agcgtgcatg ccagcggctt
240
tctgacgacc tcgacgaccg cggtttcaaa acccgcgcca tccacggtga tctcagcag
300
gtcgcgcgtg aaaaggcgtc caagaaattc cgtcatggcg aggcgaccat cctgggtggc
360
accgatgtcg ctgcccgtag cattgacgtc accgggggtgt cccacgtcat caaccatgaa
420
tgtcccgaa acgagaaaaa atacgtccac cgcattggt
459

```

```
<210> 2582
<211> 153
<212> PRT
<213> Homo sapiens
```

```

<400> 2582
Met Leu Phe Ser Ala Thr Met Pro Ala Pro Ile Met Ala Leu Ala Arg
 1             5             10             15
Ser Gln Leu Arg Arg Pro Val His Val Arg Ala Glu Gly Ala Asp Thr
      20             25             30
Gln Thr Thr Val Pro Asp Thr Gln Gln Phe Val Tyr Gln Ala His Ser
      35             40             45
Leu Asp Lys Ile Glu Ile Ile Gly Arg Ile Leu Gln Ala Asn Asp Val
      50             55             60
Glu Lys Val Ile Ile Phe Cys Arg Thr Lys Arg Ala Cys Gln Arg Leu
65             70             75             80
Ser Asp Asp Leu Asp Asp Arg Gly Phe Lys Thr Arg Ala Ile His Gly
      85             90             95
Asp Leu Thr Gln Val Ala Arg Glu Lys Ala Leu Lys Lys Phe Arg His
      100            105            110
Gly Glu Ala Thr Ile Leu Val Ala Thr Asp Val Ala Ala Arg Gly Ile
      115            120            125
Asp Val Thr Gly Val Ser His Val Ile Asn His Glu Cys Pro Glu Asp

```

130
Glu Lys Thr Tyr Val His Arg Ile Gly
145 150

140

<210> 2583
<211> 7098
<212> DNA
<213> Homo sapiens

<400> 2583
ctgttgccgc gccgggtggg tgcattttaaa ttttttcatt ccctgaacta tgggttatga
60
tatccatact cactgaagac aaaaagccac cttttctgcg tcttggtggc atgcatgtgt
120
ctcatcatcc tttaaactt gtggtggaac agggttttct tccctgtctg tgtattttga
180
gccagcacag ttacaaaaat tgaacttgct tttcgcttgt gaacgggtgt ggtcattgtg
240
agggcgggtc atgaggaggc ttagccaag gacgagggtg gtgaggctgt tgcctggacg
300
tttgtccaat ccacgttgac atttgaggga tcacagcgtg tgaaaatgaa ctgaggagg
360
aattggtgaa ttcctatcca gtgggcattt tcaaaccctg gtcgacggcg gaagaatgc
420
aggctctgag atcacccacc cggcgcgga acagtgcaga gtggccacat ctggtggaag
480
aagaaaaaaa tgtagttatt gaattcaatc aagtgtttgc atctttcaag ctatcaacaa
540
aattccatca agaaagggtc cagttggtct cacagacgta tggatatccg aggagccacc
600
taaagatgga gaaatcaagg catagagaga ttaagtgact ttgccacagt cacaagctgg
660
agaggaccag gagtagagct tagagcgagc cctgactct gggcctgcgt cctgccagga
720
gtcacgctgc ctccgttctt aggagagaag acttcctgta agatggagggt ggacaccgag
780
gagaagcggc atcgacgcg gtccaaaggg gtctgagttc ccgtggaacc agccatacaa
840
gagctgttca gctgtccac ccctggctgt gacggcagtg gtcattgtcag tggcaaatat
900
gcaagacaca gaagtgtata tggttgtccc ttggcgaaaa aaagaaaaac acaagataaa
960
cagccccagg aacctgctcc taaacgaaag ccatttgccg tgaaagcaga cagctcctca
1020
gtggatgagt gtgacgacag tgatgggact gaggacatgg atgagaagga ggaggatgag
1080
ggggaggagt actccgagga caatgacgag ccaggggatg aggacgagga ggacgaggag
1140
ggggaccggg agggggagga ggagatcgag gaggaggatg aggacgatga cgaggatgga
1200
gaagatgtgg aggatgaaga agaggaagag gaggaggagg aggaggagga agaggaagaa
1260
gaaaacgaag accatcaaat gaattgtcac aatactcgaa taatgcaaga cacagaaaag
1320

gatgataaca atagtgacga atatgacaat tacgatgaac tgggtggccaa gtcattgtta
1380
aacctcggca aaatcgctga ggatgcagcc taccggggcca ggactgagtc agaaatgaac
1440
agcaatacct ccaatagtct ggaagacgat agtgacaaaa acgaaaacct gggtcggaaa
1500
agtgagttga gtttagactt agacagtgat gttgttagag aaacagtgga ctcccttaaa
1560
ctattagccc aaggacacgg tgttgtgctc tcagaaaaca tgaatgacag aaattatgca
1620
gacagcatgt cgcagcaaga cagtagaaat atgaattacg tcatgttggg gaagcccatg
1680
aacaacggac tcatggaaaa gatggtggag gagagcgatg aggaggtgtg tctgagcagt
1740
ctggagtgtt tgaggaatca gtgcttcgac ctggccagga agctcagtga gaccaacccg
1800
caggagagga atccgcagca gaacatgaac atccgtcagc atgtccggcc agaagaggac
1860
ttcccaggaa ggacgccgga cagaaactac tcggacatgc tgaacctcat gcggctggag
1920
gagcagttga gccccggtc gagagtgttt gccagctgtg cgaaggagga tgggtgtcat
1980
gagcgggacg acgataccac ctctgtgaac tcggacaggt ctgaagaggt gttcgacatg
2040
accaagggga acctgaccct gctggagaaa gccatcgctt tggaaacgga aagagcaaag
2100
gccatgaggg agaagatggc catggaagct gggaggaggg acaatatgag gtcatatgag
2160
gaccagtctc cgagacaact tcccggggag gacagaaagc ctaaattccag tgacagccat
2220
gtcaaaaagc catactatgg taaagatccc tcaagaacag aaaagaaaga gagcaagtgt
2280
ccaacccccg ggtgtgatgg aaccggccac gtaactgggc tgtaccaca tcaccgcagc
2340
ctgtccggat gcccgacaaa agatagggtc cctccagaaa tccttgccat gcatgaaagt
2400
gtcctcaagt gcccactcc gggctgcacg gggcgcgggc atgtcaacag caacaggaac
2460
tcccaccgaa gcctctccgg atgcccgatc gctgcagcag agaaactggc caaggcacag
2520
gaaaagcacc agagctgca cgtgtccaag tccagccagg cctcggaccg cgtgtcagg
2580
ccaatgtgct ttgtgaagca gctggagatt cctcagtatg gctacagaaa caatgtcccc
2640
acaactacgc cgcgttccaa cctggccaag gagctcgaga aatattccaa aacctcgttt
2700
gaatacaaca gttacgacaa ccatacttat ggcaagcgag ccatagctcc caaggtgcaa
2760
accagggata tatcccccaa aggatatgat gatgcgaagc ggtactgcaa ggacccagc
2820
cccagcagca gcagcaccag cagctacgag cccagcagca gcagcaacct gagctgcggc
2880
gggggcagca gcgccagcag cacgtgcagc aagagcagct tcgactacac gcacgacatg
2940

gaggcggccc acatggcggc caccgccatc ctcaacctgt ccacgcgctg ccgcgagatg
3000
ccgcagaacc tgagcaccaa gccgcaggac ctgtgcgcca cgcggaaccc tgacatggag
3060
gtggatgaga acgggaccct ggacctcagc atgaacaagc agaggccgcg ggacagctgc
3120
tgccccatcc tgacccctct ggagcccatg tccccccagc agcaggcagt gatgaacaac
3180
cgggtgtttcc agctgggcca gggcgactgc tgggacttgc ccgtagacta caccaaaatg
3240
aaaccccgga ggatagacga ggacgagtcc aaagacatta ctccagaaga cttggaccca
3300
ttccaggagg ctctagaaga aagacggtat cccggggagg tgaccatccc aagtcccaaa
3360
cccaagtacc ctcaagtcaa ggagagcaaa aaggacttaa taactctgtc tggctgcccc
3420
ctggcggaca aaagcattcg aagtatgctg gccaccagct cccaagaact caagtgcccc
3480
acgcctggct gtgatggttc tggacatatc accggcaatt atgcttctca tcggagcctt
3540
tcaggttgcc caagagcaaa gaaaagtggc atcaggatag cacagagcaa agaagataaa
3600
gaagatcaag aacccatcag gtgtccggtc cccgggtgcg acggccaggg ccacatcact
3660
gggaagtacg cgtcccatcg cagcgcctcc gggtgccctt tggcggccaa gaggcagaaa
3720
gacgggtacc tgaatggctc ccagttctcc tggaaagtcgg tcaagacgga aggcagtgtc
3780
tgccccacgc caggatgcga cggctcaggc cagctcagcg gcagcttctt cacacaccgc
3840
agcttgctcag gatgcccag agccacgtca gcgatgaaga aggcaaagct ttctggagag
3900
cagatgctga ccatcaaaaca gcgggccagc aacggtatag aaaatgatga agaaatcaaa
3960
cagttagatg aagaaatcaa ggagctaaat gaatccaatt cccagatgga agccgatatg
4020
attaaactca gaactcagat taccacgatg gagagcaacc tgaagaccat cgaagaggag
4080
aacaaagtga ttgagcagca gaacgagtct ctctccacg agctggcgaa cctgagccag
4140
tctctgatcc acagcctggc taacatccag ctgccgcaca tggatccaat caatgaacaa
4200
aattttgatg cttacgtgac tactttgacg gaaatgtata caaatcaaga tcgttatcag
4260
agtccagaaa ataaagccct actggaaaat ataaagcagg ctgtgagagg aattcaggtc
4320
tgaacagctg ctgtagtgat gaaactcttg cttaaaaagg atgcctcttg ttttttgctg
4380
ctgtaactta ccagaaagtg ttctatatct atttctgttt gaatttgaaa cagtgttatg
4440
cttacaagac ttcataatga ttttatgtct tgcttttaaag atagtacctg cagaatagtt
4500
tttgaataca cccacatttt gtacgtttcc atgtaagctg acatagtgtt ctgccatgta
4560

atgtttatag ctgctgatgt atgcacattt gggggtatat ctatttctga agaggtaagc
4620
tgatcaaaat aaatagagtg taaattcttt ttaatgcttt agtgattaaa tgttttagta
4680
ttttgaactg aaatggacac acaaacacac acacgcacac acagaccac agctttgaat
4740
gatcatgttg tggctgagca gccgcttttt agacgttatc attttgcctc atgttgagg
4800
actttatgga atttaagaaa tacattttgt gtgcatattg tttcatagca agaattcggt
4860
gcaaaaatgc tttatttttg aacaatgctt ggaaatatta tgtgactttt ttgtttgttt
4920
gttttaggag gatggtgtat ggtgggggca ataaatgagg ttttttgcac tccaaggaaa
4980
tggcatatgg attaactgta agaaatgaaa taagtaattt attgtaagac aacatcaagc
5040
catggaaact tggcagaaga ttcaaagcag cttaaacagc acttttaaat taactcctaa
5100
gcgttacatg gttgtgacta tggaaactcc agttaagaca ggatcttatc agagggtggac
5160
aacgtgaaga tttccttttc cattttcaat aaactttgga acaaccttct cgtatctccc
5220
ctagagtttc gtgcccctct gaactgtctg ttattgcaat gtagtttatc aacagaattt
5280
gtgtgttttc gatttaagct aaaagataat ttaagaacat ttatttcccc ttttactttt
5340
aaaaaattat gattattcct attattgtta tgaaccttct tattttacat ttgagggata
5400
aaggcaaagc atttgtgagt cttctagtta ctggaccgag ttttctgctg gatctggtgg
5460
gaaggcagct cggtaaagtt tccctcctgc tccccccgac cgactttgac tctgaatcag
5520
catttggtcc tattcagagg actcttacca cgacgtttct gttctacact tgggtggaga
5580
ccagttgacc atagagcatt tgcagagcct cattgtttga tttcttgtga ctattctaag
5640
aatgaatgca atcagattttt aaaagtaact aaatatactt cagcactttt ttgctttaaa
5700
ctagatcatc ttagacttgt ttataccttc cagatttgat tgttttactc ccaatgactg
5760
cactatatgt atgcataaga ccacttttga gcgctgtgtt ccccttctg agtagtcctt
5820
tgacgacgtg ttgtgttttc tgatgttgac ttgagttcca tttagtagca tctcttcctt
5880
ccatgtcttg atgttatgca ggaagtacag acgtacttta aatttttggt atgaaataaa
5940
aaaaagatgg gttttgtaaa aataaaaaaa aaatattttt agcagaacag gacttacagg
6000
gtcattgtcc ccacaatgtg ccagtcgact atttgcaactt accttgctct atatatccgt
6060
acggaggtgt gcaattcctc gtgtcagtag ccttggtgaca ctgaacctgg atggattata
6120
gaggagccct cacggctgat caataatgtt gcaaaggag actacagga tctcacgacg
6180

aatattctga tacaatactc aacctcggta tatatatatg tgtataaata tatgtatatc
 6240
 ccagcggcac ttatatactgt tcaactgtaca aaagcttaca gttttccaca aggactttta
 6300
 taactagctg ggaaaagacg atgtaattat ttccggggctc tgcggaacct tctctgtaca
 6360
 gcgccccctt tctgttgtgc tattgggtgc agctgccatg ctcagaatgc gttttgagag
 6420
 ctgaagcaag gtgcttgcag tcacctgagg ccgtccgtgt ggcccagggc cccagctgcc
 6480
 tttagggccc ccattgttca taacagcata tgcatttccc caccgcgttg tgtctgcagc
 6540
 ttctttgcca atataagtaat gcttttagta gagtactaga tagtatcagt tttggattct
 6600
 tattgttatc acctatgtac aatggaaagg gattttaagc acaaacctgc tgctcatcta
 6660
 acgttggtac ataactctca atcaaaagtt atctgtgact attatatagg gatcacaaaa
 6720
 gtgtcacata ttagaatgct gacctttcat atggattatt gtgagtcac agagtttatt
 6780
 ataacttatt gttcatattc atttctaagt taatttaagt aatcatttat taagacagaa
 6840
 ttttgataaa actatttatt gtgctctctg tggaactgaa gtttgattta tttttgtact
 6900
 acacggcatg ggtttgttga cactttaatt ttgtataaaa tgtgtggaat cacaagttgc
 6960
 tgtgatactt cttttttaa tttgtgaactt tgtacaaatt ttgtcatgct ggatgttaac
 7020
 acatcttact ctaaataaac aagggtgttgc cacatttgta gcacgaaaaa aaaaaaaaaa
 7080
 aaaaaaaaaa aaaaaaaaaa
 7098

<210> 2584

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 2584

Met	Glu	Val	Asp	Thr	Glu	Glu	Lys	Arg	His	Arg	Thr	Arg	Ser	Lys	Gly
1				5					10					15	
Val	Arg	Val	Pro	Val	Glu	Pro	Ala	Ile	Gln	Glu	Leu	Phe	Ser	Cys	Pro
			20					25					30		
Thr	Pro	Gly	Cys	Asp	Gly	Ser	Gly	His	Val	Ser	Gly	Lys	Tyr	Ala	Arg
		35					40					45			
His	Arg	Ser	Val	Tyr	Gly	Cys	Pro	Leu	Ala	Lys	Lys	Arg	Lys	Thr	Gln
		50				55					60				
Asp	Lys	Gln	Pro	Gln	Glu	Pro	Ala	Pro	Lys	Arg	Lys	Pro	Phe	Ala	Val
65					70					75					80
Lys	Ala	Asp	Ser	Ser	Ser	Val	Asp	Glu	Cys	Asp	Asp	Ser	Asp	Gly	Thr
				85					90					95	
Glu	Asp	Met	Asp	Glu	Lys	Glu	Glu	Asp	Glu	Gly	Glu	Glu	Tyr	Ser	Glu
			100					105					110		
Asp	Asn	Asp	Glu	Pro	Gly	Asp	Glu	Asp	Glu	Glu	Asp	Glu	Glu	Gly	Asp

		115					120					125				
Arg	Glu	Gly	Glu	Glu	Glu	Ile	Glu	Glu	Glu	Asp	Glu	Asp	Asp	Asp	Glu	
	130					135					140					
Asp	Gly	Glu	Asp	Val	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	
145					150						155				160	
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asn	Glu	Asp	His	Gln	Met	Asn	Cys	His	
					165				170					175		
Asn	Thr	Arg	Ile	Met	Gln	Asp	Thr	Glu	Lys	Asp	Asp	Asn	Asn	Ser	Asp	
			180					185				190				
Glu	Tyr	Asp	Asn	Tyr	Asp	Glu	Leu	Val	Ala	Lys	Ser	Leu	Leu	Asn	Leu	
		195					200					205				
Gly	Lys	Ile	Ala	Glu	Asp	Ala	Ala	Tyr	Arg	Ala	Arg	Thr	Glu	Ser	Glu	
	210					215					220					
Met	Asn	Ser	Asn	Thr	Ser	Asn	Ser	Leu	Glu	Asp	Asp	Ser	Asp	Lys	Asn	
225					230					235					240	
Glu	Asn	Leu	Gly	Arg	Lys	Ser	Glu	Leu	Ser	Leu	Asp	Leu	Asp	Ser	Asp	
				245					250					255		
Val	Val	Arg	Glu	Thr	Val	Asp	Ser	Leu	Lys	Leu	Leu	Ala	Gln	Gly	His	
			260					265					270			
Gly	Val	Val	Leu	Ser	Glu	Asn	Met	Asn	Asp	Arg	Asn	Tyr	Ala	Asp	Ser	
		275					280					285				
Met	Ser	Gln	Gln	Asp	Ser	Arg	Asn	Met	Asn	Tyr	Val	Met	Leu	Gly	Lys	
	290					295					300					
Pro	Met	Asn	Asn	Gly	Leu	Met	Glu	Lys	Met	Val	Glu	Glu	Ser	Asp	Glu	
305					310					315					320	
Glu	Val	Cys	Leu	Ser	Ser	Leu	Glu	Cys	Leu	Arg	Asn	Gln	Cys	Phe	Asp	
				325					330					335		
Leu	Ala	Arg	Lys	Leu	Ser	Glu	Thr	Asn	Pro	Gln	Glu	Arg	Asn	Pro	Gln	
			340					345					350			
Gln	Asn	Met	Asn	Ile	Arg	Gln	His	Val	Arg	Pro	Glu	Glu	Asp	Phe	Pro	
		355					360					365				
Gly	Arg	Thr	Pro	Asp	Arg	Asn	Tyr	Ser	Asp	Met	Leu	Asn	Leu	Met	Arg	
	370					375					380					
Leu	Glu	Glu	Gln	Leu	Ser	Pro	Arg	Ser	Arg	Val	Phe	Ala	Ser	Cys	Ala	
385					390					395					400	
Lys	Glu	Asp	Gly	Cys	His	Glu	Arg	Asp	Asp	Asp	Thr	Thr	Ser	Val	Asn	
				405					410					415		
Ser	Asp	Arg	Ser	Glu	Glu	Val	Phe	Asp	Met	Thr	Lys	Gly	Asn	Leu	Thr	
			420					425					430			
Leu	Leu	Glu	Lys	Ala	Ile	Ala	Leu	Glu	Thr	Glu	Arg	Ala	Lys	Ala	Met	
		435					440					445				
Arg	Glu	Lys	Met	Ala	Met	Glu	Ala	Gly	Arg	Arg	Asp	Asn	Met	Arg	Ser	
	450					455					460					
Tyr	Glu	Asp	Gln	Ser	Pro	Arg	Gln	Leu	Pro	Gly	Glu	Asp	Arg	Lys	Pro	
465					470		</									

545		550		555		560									
Val	Asn	Ser	Asn	Arg	Asn	Ser	His	Arg	Ser	Leu	Ser	Gly	Cys	Pro	Ile
		565		570		575									
Ala	Ala	Ala	Glu	Lys	Leu	Ala	Lys	Ala	Gln	Glu	Lys	His	Gln	Ser	Cys
		580		585		590									
Asp	Val	Ser	Lys	Ser	Ser	Gln	Ala	Ser	Asp	Arg	Val	Leu	Arg	Pro	Met
		595		600		605									
Cys	Phe	Val	Lys	Gln	Leu	Glu	Ile	Pro	Gln	Tyr	Gly	Tyr	Arg	Asn	Asn
	610			615		620									
Val	Pro	Thr	Thr	Thr	Pro	Arg	Ser	Asn	Leu	Ala	Lys	Glu	Leu	Glu	Lys
625				630		635			640						
Tyr	Ser	Lys	Thr	Ser	Phe	Glu	Tyr	Asn	Ser	Tyr	Asp	Asn	His	Thr	Tyr
			645			650			655						
Gly	Lys	Arg	Ala	Ile	Ala	Pro	Lys	Val	Gln	Thr	Arg	Asp	Ile	Ser	Pro
		660		665		670									
Lys	Gly	Tyr	Asp	Asn	Ala	Lys	Arg	Tyr	Cys	Lys	Asp	Pro	Ser	Pro	Ser
		675		680		685									
Ser	Ser	Ser	Thr	Ser	Ser	Tyr	Ala	Pro	Ser	Ser	Ser	Ser	Asn	Leu	Ser
	690			695		700									
Cys	Gly	Gly	Gly	Ser	Ser	Ala	Ser	Ser	Thr	Cys	Ser	Lys	Ser	Ser	Phe
705				710		715			720						
Asp	Tyr	Thr	His	Asp	Met	Glu	Ala	Ala	His	Met	Ala	Ala	Thr	Ala	Ile
			725			730			735						
Leu	Asn	Leu	Ser	Thr	Arg	Cys	Arg	Glu	Met	Pro	Gln	Asn	Leu	Ser	Thr
		740		745		750									
Lys	Pro	Gln	Asp	Leu	Cys	Ala	Thr	Arg	Asn	Pro	Asp	Met	Glu	Val	Asp
		755		760		765									
Glu	Asn	Gly	Thr	Leu	Asp	Leu	Ser	Met	Asn	Lys	Gln	Arg	Pro	Arg	Asp
	770			775		780									
Ser	Cys	Cys	Pro	Ile	Leu	Thr	Pro	Leu	Glu	Pro	Met	Ser	Pro	Gln	Gln
785				790		795			800						
Gln	Ala	Val	Met	Asn	Asn	Arg	Cys	Phe	Gln	Leu	Gly	Glu	Gly	Asp	Cys
			805			810			815						
Trp	Asp	Leu	Pro	Val	Asp	Tyr	Thr	Lys	Met	Lys	Pro	Arg	Arg	Ile	Asp
		820		825		830									
Glu	Asp	Glu	Ser	Lys	Asp	Ile	Thr	Pro	Glu	Asp	Leu	Asp	Pro	Phe	Gln
	835			840		845									
Glu	Ala	Leu	Glu	Glu	Arg	Arg	Tyr	Pro	Gly	Glu	Val	Thr	Ile	Pro	Ser
	850			855		860									
Pro	Lys	Pro	Lys	Tyr	Pro	Gln	Cys	Lys	Glu	Ser	Lys	Lys	Asp	Leu	Ile
865				870		875			880						
Thr	Leu	Ser	Gly	Cys	Pro	Leu	Ala	Asp	Lys	Ser	Ile	Arg	Ser	Met	Leu
			885			890			895						
Ala	Thr	Ser	Ser	Gln	Glu	Leu	Lys	Cys	Pro	Thr	Pro	Gly	Cys	Asp	Gly
		900		905		910									
Ser	Gly	His	Ile	Thr	Gly	Asn	Tyr	Ala	Ser	His	Arg	Ser	Leu	Ser	Gly
	915			920		925									
Cys	Pro	Arg	Ala	Lys	Lys	Ser	Gly	Ile	Arg	Ile	Ala	Gln	Ser	Lys	Glu
	930			935		940									
Asp	Lys	Glu	Asp	Gln	Glu	Pro	Ile	Arg	Cys	Pro	Val	Pro	Gly	Cys	Asp
945				950		955			960						
Gly	Gln	Gly	His	Ile	Thr	Gly	Lys	Tyr	Ala	Ser	His	Arg	Ser	Ala	Ser
			965			970			975						
Gly	Cys	Pro	Leu	Ala	Ala	Lys	Arg	Gln	Lys	Asp	Gly	Tyr	Leu	Asn	Gly

980 985 990
 Ser Gln Phe Ser Trp Lys Ser Val Lys Thr Glu Gly Met Ser Cys Pro
 995 1000 1005
 Thr Pro Gly Cys Asp Gly Ser Gly His Val Ser Gly Ser Phe Leu Thr
 1010 1015 1020
 His Arg Ser Leu Ser Gly Cys Pro Arg Ala Thr Ser Ala Met Lys Lys
 1025 1030 1035 1040
 Ala Lys Leu Ser Gly Glu Gln Met Leu Thr Ile Lys Gln Arg Ala Ser
 1045 1050 1055
 Asn Gly Ile Glu Asn Asp Glu Glu Ile Lys Gln Leu Asp Glu Glu Ile
 1060 1065 1070
 Lys Glu Leu Asn Glu Ser Asn Ser Gln Met Glu Ala Asp Met Ile Lys
 1075 1080 1085
 Leu Arg Thr Gln Ile Thr Thr Met Glu Ser Asn Leu Lys Thr Ile Glu
 1090 1095 1100
 Glu Glu Asn Lys Val Ile Glu Gln Gln Asn Glu Ser Leu Leu His Glu
 1105 1110 1115 1120
 Leu Ala Asn Leu Ser Gln Ser Leu Ile His Ser Leu Ala Asn Ile Gln
 1125 1130 1135
 Leu Pro His Met Asp Pro Ile Asn Glu Gln Asn Phe Asp Ala Tyr Val
 1140 1145 1150
 Thr Thr Leu Thr Glu Met Tyr Thr Asn Gln Asp Arg Tyr Gln Ser Pro
 1155 1160 1165
 Glu Asn Lys Ala Leu Leu Glu Asn Ile Lys Gln Ala Val Arg Gly Ile
 1170 1175 1180
 Gln Val
 1185

<210> 2585

<211> 542

<212> DNA

<213> Homo sapiens

<400> 2585

cactcactcc tccacagaat ttggcctcag ccagccccac gctcagcatg cccagccctg
 60
 ccaagagccc agggatcgcc tcgctgacag accccaaaac acggggccacg ccaccccgtc
 120
 ctctaggtac ctgtgcccc agtctcaagc atcactccgt gtctccctca catgccttct
 180
 gggcctctag ccctcaaaga gctaaagtat gtgagcactt tctcagccct ttaaaccggat
 240
 taagtcatgt catcctcaca aggctgctgt gttttattac ctctgtttca ggtgcaagtc
 300
 atccccggga ggagtgggtg ggatgccgcc tgacctggg ccacctggct gcagcatctg
 360
 tgttgatgac caccctctg cctcaggctt tgctcctgaa tgttcttgct ctctaggtct
 420
 gtccgctcct ggcctgctc ttcttaactc cgttcaagcc ccctgggtca caggtccatg
 480
 ctcacactt caatgacgcg gatgctggcg atccccaaat ctctaatcc aagtgcagat
 540
 ct
 542

<210> 2586
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 2586
 Met Pro Ser Pro Ala Lys Ser Pro Gly Ile Ala Ser Leu Thr Asp Pro
 1 5 10 15
 Lys Thr Arg Ala Thr Pro Pro Arg Pro Leu Gly Thr Cys Ala Pro Ser
 20 25 30
 Leu Lys His His Ser Val Ser Pro Ser His Ala Phe Trp Ala Ser Ser
 35 40 45
 Pro Gln Arg Ala Lys Val Cys Glu His Phe Leu Ser Pro Leu Asn Gly
 50 55 60
 Leu Ser His Val Ile Leu Thr Arg Leu Leu Cys Phe Ile Thr Ser Val
 65 70 75 80
 Ser Gly Ala Ser His Pro Arg Glu Glu Trp Trp Gly Cys Arg Leu Thr
 85 90 95
 Leu Gly His Leu Ala Ala Ala Ser Val Leu Met Thr Thr Leu Leu Pro
 100 105 110
 Gln Ala Leu Leu Leu Asn Val Leu Ala Leu
 115 120

<210> 2587
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 2587
 ncgaatatcc atgcagcgat cccggggcgga atgctctcca acatggagtc ccagcttgag
 60
 gcccgaggcg ctggagaccg catggatgag gtcataaagg aggtgccgcg cgttcgtaag
 120
 gatgccggt acccgccgct ggtaaccccg tcgtcccaga tcgtgggaac ccaggcgggtg
 180
 ttcaacgtct tgatgggcaa tgggtcgtac aagaatctca ctgccgagtt tgccgacctc
 240
 atgctcgggt actacggcaa gccattggc gagctcaatc ctgagatcgt cgagatggcc
 300
 aagaagcaga ccggcaagga gccgatcgac tgccgtcccg ccgacttgct cgagcctgag
 360
 tgggatcagt tggtcgagca ggccaagagt cttgaggggt tcgacggctc cgacgaggac
 420
 gttcttacca acgcg
 435

<210> 2588
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2588
 Xaa Asn Ile His Ala Ala Ile Pro Gly Gly Met Leu Ser Asn Met Glu

```

      1           5           10           15
Ser Gln Leu Glu Ala Gln Gly Ala Gly Asp Arg Met Asp Glu Val Met
      20           25           30
Lys Glu Val Pro Arg Val Arg Lys Asp Ala Gly Tyr Pro Pro Leu Val
      35           40           45
Thr Pro Ser Ser Gln Ile Val Gly Thr Gln Ala Val Phe Asn Val Leu
      50           55           60
Met Gly Asn Gly Ser Tyr Lys Asn Leu Thr Ala Glu Phe Ala Asp Leu
      65           70           75           80
Met Leu Gly Tyr Tyr Gly Lys Pro Ile Gly Glu Leu Asn Pro Glu Ile
      85           90           95
Val Glu Met Ala Lys Lys Gln Thr Gly Lys Glu Pro Ile Asp Cys Arg
      100          105          110
Pro Ala Asp Leu Leu Glu Pro Glu Trp Asp Gln Leu Val Glu Gln Ala
      115          120          125
Lys Ser Leu Glu Gly Phe Asp Gly Ser Asp Glu Asp Val Leu Thr Asn
      130          135          140
Ala
145

```

<210> 2589

<211> 366

<212> DNA

<213> Homo sapiens

<400> 2589

```

ccggcgaaga aggacatggc catggtcttc ggcgcgactc attacgtcga cccgacggcc
60
ggcgatccgg ttgagcagat cagagcgctg accagggggc gcggcgctcga tttcgcgatc
120
gaggtcgtcg gcatcgctcga ggtcatggag caggcctact gggcgggcgcg acgcggcggc
180
acgatcgtct acgtcggggc gctgggcatc gacgccaaagc tggctcctgcc ggccaacgac
240
ctgcacggcg gcgccaagac gatcatcggc tgcgccaacg gattggggcg agtgcgccacc
300
gactatgccca agatgatctc gctggtcgag accggacggc tggacctggg cgggatgatc
360
acgcgt
366

```

<210> 2590

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2590

```

Pro Ala Lys Lys Asp Met Ala Met Val Phe Gly Ala Thr His Tyr Val
      1           5           10           15
Asp Pro Thr Ala Gly Asp Pro Val Glu Gln Ile Arg Ala Leu Thr Arg
      20           25           30
Gly Arg Gly Val Asp Phe Ala Ile Glu Val Val Gly Ile Val Glu Val
      35           40           45
Met Glu Gln Ala Tyr Trp Ala Ala Arg Arg Gly Gly Thr Ile Val Tyr

```

50	55	60
Val Gly Ala Leu Gly Ile Asp Ala Lys Leu Val Leu Pro Ala Asn Asp		
65	70	75
Leu His Gly Gly Ala Lys Thr Ile Ile Gly Cys Ala Asn Gly Leu Gly		80
	85	90
Ala Val Arg Thr Asp Tyr Ala Lys Met Ile Ser Leu Val Glu Thr Gly		95
	100	105
Arg Leu Asp Leu Gly Gly Met Ile Thr Arg		110
	115	120

<210> 2591
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 2591
 acgcgtaaag gcatgacctc accttatcat cagggtcaca cgtgtgttat tctggggctg
 60
 agcagcccac gagttgtcca gcaccaggcc aggggtcagt cagcaatgag gacagctcct
 120
 tctgtctcca gggcaggccc tgggcagggc aatgctgggg acacgggtggg gagtaggcc
 180
 cagcttctgt gggggagttc ctatggcagg aggatcatgc ccagcagcgt ggaagagcaa
 240
 ggggtgaccc tgcactcgag gctcctggga agacggggag ggttgagggtt acatgaggga
 300
 gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
 341

<210> 2592
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 2592
Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
1 5 10 15
Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
20 25 30
Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
35 40 45
Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
50 55 60
Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
65 70 75 80
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
85 90 95
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gln Gly Gly
100 105

<210> 2593
 <211> 501
 <212> DNA
 <213> Homo sapiens

<400> 2593

cgcgtaaggc caccagaaga tttttatgca cagattccgt tgcttcgaga gctaatttcg
 60
 gcgctttcat ggggttttat ggaggtggat gaatatgagg cggatgatat tatcgggtacc
 120
 ttggcgcgcc aagcggatga agcgggggat tatatgactt atattgtgtc ttcggacctc
 180
 gatatgctgc aaatcgtaga tgaaaacacc aagatgtatc gaattctgcg gggattttcg
 240
 gatctcgagg agatggatac tccagcgatt gaagaaaaat atggaatctt gaagtcgcaa
 300
 tttttggacc tgaaggcgct gaagggggat aattcggata atattccagg cgtaccaggg
 360
 attggtgaga aaaccgcagt gaaactcttg aatgagtatg gtagcttgga ggggatttat
 420
 aatcatatca aggaaatttc gggggcgaca cagaagaaat tgattgctgg acgcgaatca
 480
 gctgagatgt ctcttaagct t
 501

<210> 2594

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2594

Arg	Val	Arg	Pro	Pro	Glu	Asp	Phe	Tyr	Ala	Gln	Ile	Pro	Leu	Leu	Arg
1				5					10					15	
Glu	Leu	Ile	Ser	Ala	Leu	Ser	Trp	Gly	Phe	Met	Glu	Val	Asp	Glu	Tyr
			20					25					30		
Glu	Ala	Asp	Asp	Ile	Ile	Gly	Thr	Leu	Ala	Arg	Gln	Ala	Asp	Glu	Ala
		35				40					45				
Gly	Asp	Tyr	Met	Thr	Tyr	Ile	Val	Ser	Ser	Asp	Leu	Asp	Met	Leu	Gln
	50				55					60					
Ile	Val	Asp	Glu	Asn	Thr	Lys	Met	Tyr	Arg	Ile	Leu	Arg	Gly	Phe	Ser
65				70				75						80	
Asp	Leu	Glu	Glu	Met	Asp	Thr	Pro	Ala	Ile	Glu	Glu	Lys	Tyr	Gly	Ile
			85					90						95	
Leu	Lys	Ser	Gln	Phe	Leu	Asp	Leu	Lys	Ala	Leu	Lys	Gly	Asp	Asn	Ser
		100						105					110		
Asp	Asn	Ile	Pro	Gly	Val	Pro	Gly	Ile	Gly	Glu	Lys	Thr	Ala	Val	Lys
		115					120					125			
Leu	Leu	Asn	Glu	Tyr	Gly	Ser	Leu	Glu	Gly	Ile	Tyr	Asn	His	Ile	Lys
	130					135				140					
Glu	Ile	Ser	Gly	Ala	Thr	Gln	Lys	Lys	Leu	Ile	Ala	Gly	Arg	Glu	Ser
145					150					155				160	
Ala	Glu	Met	Ser	Leu	Lys	Leu									
				165											

<210> 2595

<211> 928

<212> DNA

<213> Homo sapiens

<400> 2595

agatcttcca gatgcaacaa tgatcaatta agacacgcgg cgacatgggtg gccctgcct
 60
 cccccccag ggatacctgt aatacctgct tcccacttca tgggctacaa tctcatgctg
 120
 gtcacaattt ctggggctca ctcatataac accaacaaat gggatatttg tgaagaactt
 180
 cgcctgcggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg
 240
 tggtggtcgg actgcactgc caactggaga gaaaaatgga gttaaagtctg agctgaaagg
 300
 aacagtgccg gaaaggaagg aagacaactc agaataaaac tagagatggc gatgaaagaa
 360
 tcggatccac tgaacacagaa acagagtttg ccacttcaga aggaggcatt agaagcta
 420
 gttacccagg atctgaagct tcttggttc gtagaagaat cctgtgaaca tacagaccaa
 480
 tttcaattga gttcacaaat gcatgagtct atcagagagt atttggtaaa aagacaattt
 540
 tctacaaagg aggacacaaa taataaggaa caaggtgtgg ttattgattc tctaaaatta
 600
 agtgaggaga tgaagcccaa tctagatggg gttgatttat tcaacaatgg tggttctgga
 660
 aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa
 720
 gtaactgaaa tttcagcttt gcaggtgcat ttggatgaat tccaaaaaat cttatggaag
 780
 gaaagagaaa tgcgcacagc tttggaaaaa gaaatagaga gactggagtc ggctttgtct
 840
 ctgtggaagt ggaagtatga agaactgaaa gaatcaaagc caaaaaatgt gaaagagttt
 900
 gacattcttc ttggtcaaca taatgatg
 928

<210> 2596

<211> 309

<212> PRT

<213> Homo sapiens

<400> 2596

Arg	Ser	Ser	Arg	Cys	Asn	Asn	Asp	Gln	Leu	Arg	His	Ala	Ala	Thr	Trp
1				5				10						15	
Trp	Pro	Leu	Pro	His	Pro	Pro	Gly	Ile	Pro	Val	Ile	Pro	Ala	Ser	His
			20					25					30		
Phe	Met	Gly	Tyr	Asn	Leu	Met	Leu	Val	Thr	Ile	Ser	Gly	Ala	His	Ser
		35					40					45			
Tyr	Asn	Thr	Asn	Lys	Trp	Asp	Ile	Cys	Glu	Glu	Leu	Arg	Leu	Arg	Glu
	50					55					60				
Leu	Glu	Glu	Val	Lys	Ala	Arg	Ala	Ala	Gln	Met	Glu	Lys	Thr	Met	Arg
65				70					75					80	
Trp	Trp	Ser	Asp	Cys	Thr	Ala	Asn	Trp	Arg	Glu	Lys	Trp	Ser	Lys	Val
				85				90						95	
Arg	Ala	Glu	Arg	Asn	Ser	Ala	Gly	Lys	Glu	Gly	Arg	Gln	Leu	Arg	Ile

	100		105		110										
Lys	Leu	Glu	Met	Ala	Met	Lys	Glu	Ser	Asp	Pro	Leu	Lys	Gln	Lys	Gln
	115						120					125			
Ser	Leu	Pro	Leu	Gln	Lys	Glu	Ala	Leu	Glu	Ala	Asn	Val	Thr	Gln	Asp
	130					135					140				
Leu	Lys	Leu	Pro	Gly	Phe	Val	Glu	Glu	Ser	Cys	Glu	His	Thr	Asp	Gln
145				150					155					160	
Phe	Gln	Leu	Ser	Ser	Gln	Met	His	Glu	Ser	Ile	Arg	Glu	Tyr	Leu	Val
			165					170					175		
Lys	Arg	Gln	Phe	Ser	Thr	Lys	Glu	Asp	Thr	Asn	Asn	Lys	Glu	Gln	Gly
		180					185					190			
Val	Val	Ile	Asp	Ser	Leu	Lys	Leu	Ser	Glu	Glu	Met	Lys	Pro	Asn	Leu
	195					200					205				
Asp	Gly	Val	Asp	Leu	Phe	Asn	Asn	Gly	Gly	Ser	Gly	Asn	Gly	Glu	Thr
210				215							220				
Lys	Thr	Gly	Leu	Arg	Leu	Lys	Ala	Ile	Asn	Leu	Pro	Leu	Glu	Asn	Glu
225			230						235					240	
Val	Thr	Glu	Ile	Ser	Ala	Leu	Gln	Val	His	Leu	Asp	Glu	Phe	Gln	Lys
			245					250					255		
Ile	Leu	Trp	Lys	Glu	Arg	Glu	Met	Arg	Thr	Ala	Leu	Glu	Lys	Glu	Ile
	260					265					270				
Glu	Arg	Leu	Glu	Ser	Ala	Leu	Ser	Leu	Trp	Lys	Trp	Lys	Tyr	Glu	Glu
	275					280					285				
Leu	Lys	Glu	Ser	Lys	Pro	Lys	Asn	Val	Lys	Glu	Phe	Asp	Ile	Leu	Leu
	290					295					300				
Gly	Gln	His	Asn	Asp											
305															

<210> 2597

<211> 631

<212> DNA

<213> Homo sapiens

<400> 2597

```

ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt
60
ggctgcacct gcagctgagg gttagcagga attaggagat aacagtagaa tagggctaga
120
ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaatcc
180
tcctttaata atgagatgtc ttacaagtt tttgggcaag agtggtatgg ctgacctggt
240
gtcctgggaa ggaactgtgt ggggatggtg tgcaggactt acctagggtg ggaaaggcac
300
aagcagcatg gggctgtggc agctaccaga ggtaaaggga catttcaggg aaagacttgg
360
caggacaaga ccttccttgg atggatggat gaataccaga aacagggacc caagagaaag
420
gccgagtttc ataggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat
480
ggtgagacgt ccagtcgaca gtactacca ctggccagtg agaaatgtgg gaccagggtt
540
caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccagggtgga agcgggtggt
600

```

tcactccacg agtgctatct cacttacgcg t
631

<210> 2598
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2598
Met Gly Leu Trp Gln Leu Pro Glu Val Lys Gly His Phe Arg Glu Arg
1 5 10 15
Leu Gly Arg Thr Arg Pro Ser Leu Asp Gly Trp Met Asn Thr Arg Asn
20 25 30
Arg Asp Pro Arg Glu Arg Pro Ser Phe Ile Gly Arg Glu Asp Gly Ser
35 40 45
Cys Met Arg His Val Glu Leu Val Leu Met Val Arg Arg Pro Val Asp
50 55 60
Ser Thr Thr His Trp Pro Val Arg Asn Val Gly Pro Gly Phe Arg Arg
65 70 75 80
Lys Leu Gly Pro Glu Met Ser Ile Trp Lys Ala Pro Gly Trp Lys Arg
85 90 95
Val Val His Ser Thr Ser Ala Ile Ser Leu Thr Arg
100 105

<210> 2599
<211> 356
<212> DNA
<213> Homo sapiens

<400> 2599
nagatcttat acagggacgt gatgttgag aactactgga accttggttc tctgggactg
60
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
120
aagagctgtg tgaaaatagc aagaaaacca agaacgcggg aatgtgtcaa aggcgtggtc
180
acagatatcc ctctaaatg tacaatcaag gatttgctac caaaagagaa gagcagtaca
240
gaagcagtat tccacacagt ggtgttgga agacacgaaa gccctgacat tgaagacttt
300
tccttcaagg aaccccagaa aaatgtgcat gattttgagt gtcaatggag agatgn
356

<210> 2600
<211> 118
<212> PRT
<213> Homo sapiens

<400> 2600
Xaa Ile Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Trp Asn Leu Val
1 5 10 15
Ser Leu Gly Leu Cys His Phe Asp Met Asn Ile Ile Ser Met Leu Glu
20 25 30
Glu Gly Lys Glu Pro Trp Thr Val Lys Ser Cys Val Lys Ile Ala Arg

[illegible]

```
<210> 2601
<211> 329
<212> DNA
<213> Homo sapiens
```

```
<400> 2601
gcgccgatca tgatctacgg cgacgacgtc acccacctgc tcaccgaaga aggcacgcgc
60
tacttgtaca aggcgcgttc cctggaagag cgccaagcga tgatcgccgg cgggtggtggg
120
gtcaccgcct tcggcttgcg ccacaacccc aaggacactg cgcgcatgcg ccgcgaaggc
180
ttgatgcct tgcccgaaga cctcggtatc cgccgcaccg acgccaccgg cgaactgttg
240
gccgccaaga gcgtggccga cctggtggag tgggccggtg gcttgtgcaa cccgcccgcc
300
aagttcagga gctggtaaat gcgcgcctt
329
```

```
<210> 2602
<211> 105
<212> PRT
<213> Homo sapiens
```

```

<400> 2602
Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
 1             5             10             15
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
          20             25             30
Ala Met Ile Ala Gly Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
          35             40             45
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
 50             55             60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
65             70             75             80
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
          85             90             95
Asn Pro Pro Ala Lys Phe Arg Ser Trp
          100             105

```

<210> 2603
<211> 423

<212> DNA

<213> Homo sapiens

<400> 2603

tcatgatcca ttgctctacc ctttacgggt gtgcacctac gccaggtcg gtggtcagga
 60
 gcatcggttc ggtgggtaccg aggtcgagga cttccttcac gccgttggtc gcggagggca
 120
 ggttggtgta agtgggtcagg tgggccacga tctgggcaact gatcacctcg gtgaaatcga
 180
 agctctgggt accctgagcg gtcgccgaca cgacacggtc cacaccggag accagaccga
 240
 tctcggagat gatcgcgtaa ctttcattgt cgtagaggat cttgcacgca tcgatgatgc
 300
 gcttgatctc cttggcagtg aagatgattt ccatcggggg gttggccgac agatactgac
 360
 cggagctggg ggtcacctgg gtggaatcca ggtcatccgg aaccgggttc aggttggtccg
 420
 cgg
 423

<210> 2604

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2604

Met	Glu	Ile	Ile	Phe	Thr	Ala	Lys	Glu	Ile	Lys	Arg	Ile	Ile	Asp	Ala
1				5					10					15	
Cys	Lys	Ile	Leu	Tyr	Asp	Asn	Glu	Gly	Tyr	Ala	Ile	Ile	Ser	Glu	Ile
			20					25					30		
Gly	Leu	Val	Ser	Gly	Val	Asp	Arg	Val	Val	Ser	Ala	Thr	Ala	Gln	Gly
			35				40				45				
Asn	Gln	Ser	Phe	Asp	Phe	Thr	Glu	Val	Ile	Ser	Ala	Gln	Ile	Val	Ala
			50				55				60				
His	Leu	Thr	Thr	Tyr	His	Asn	Leu	Pro	Ser	Ala	Asn	Asn	Gly	Val	Lys
65					70					75				80	
Glu	Val	Leu	Asp	Leu	Gly	Thr	Thr	Glu	Pro	Met	Leu	Leu	Thr	Thr	Asp
			85					90					95		
Leu	Gly	Val	Gly	Ala	Gln	Pro									
			100												

<210> 2605

<211> 354

<212> DNA

<213> Homo sapiens

<400> 2605

ngggagggag ggcattgtcaa aagcgactgt atccagagggg tttgatttaa acatttttca
 60
 aaacatatgt ggcaaacagc ggggggaggg gatctcacca acgtttttct ccacttcttc
 120
 tttgcatgct gggacctgtt ccactttcaa aatgtgtcat tttggaagga aaggaggaa
 180

caactacttg aaaggaatac acgtcagtat gagccctttc tcctcagcag aaggttgccc
 240
 caaagtacct cctctgaggg gagagaaagg agagaggagg agagacagct ttcataaat
 300
 ggggcaccca ggactctagg gagagaggca cgttctcaca aaggcccttt gagc
 354

<210> 2606
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 2606
 Met Ser Lys Ala Thr Val Ser Arg Gly Phe Asp Leu Asn Ile Phe Gln
 1 5 10 15
 Asn Ile Cys Gly Lys Gln Arg Gly Glu Gly Ile Ser Pro Thr Phe Phe
 20 25 30
 Ser Thr Ser Ser Leu His Ala Gly Thr Cys Ser Thr Phe Lys Met Cys
 35 40 45
 His Phe Gly Arg Lys Gly Arg Asn Asn Tyr Leu Lys Gly Ile His Val
 50 55 60
 Ser Met Ser Pro Phe Ser Ser Ala Glu Gly Cys Pro Lys Val Pro Pro
 65 70 75 80
 Leu Arg Arg Glu Lys Gly Glu Arg Arg Arg Asp Ser Phe His Gln Met
 85 90 95
 Gly His Pro Gly Leu
 100

<210> 2607
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 2607
 tgatcaagaa caatgatacg atatcctaac caacagagga agcaacggaa gttgttggtg
 60
 tttttatgct gttttttttt tttgagaacg gatcttgccc ctgccccag gccggaatgg
 120
 atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaacccaa attcccacca
 180
 cacggggggcc ctaacaattg gatccatccc cnaaaaaanc cntnncaaaa aaagntaaaa
 240
 actttttttt ttttaaannn anacccccaa aaaaacccaa aaaaaaatt taaaaaa
 297

<210> 2608
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 2608
 Met Ile Arg Tyr Pro Asn Gln Gln Arg Lys Gln Arg Lys Leu Leu Leu
 1 5 10 15
 Phe Leu Cys Cys Phe Phe Phe Leu Arg Thr Asp Leu Ala Pro Ala Pro

20							25					30				
Arg	Pro	Glu	Trp	Met	Thr	Trp	Thr	Glu	Pro	Arg	Arg	Lys	Lys	Ala	Gly	
35							40					45				
Met	Cys	Lys	Pro	Lys	Phe	Pro	Pro	His	Gly	Gly	Pro	Asn	Asn	Trp	Ile	
50							55					60				
His	Pro	Xaa	Lys	Xaa	Pro	Xaa	Gln	Lys	Lys	Xaa	Lys	Thr	Phe	Phe	Phe	
65							70					75				80
Leu	Xaa	Xaa	Xaa	Pro	Gln	Lys	Asn	Gln	Lys	Lys	Lys	Phe	Lys	Lys		
85							90					95				

```
<210> 2609
<211> 305
<212> DNA
<213> Homo sapiens
```

```
<400> 2609
ncgccatcg  catgatgtca ggcaaagatg atcctggcat ggcaaaggta tacggttttg
60
ttgacacgtc cctgacgata cctatccgct catctggaga cccatgcgtt ccttggaccc
120
caattgccta cgaaaaaatt ttttttttcc ccccaaaaaa acaccccccc ctcgcatctg
180
tgaaagttct acctcggggg cgtcatctcg gctgtcatcg tcggcaaata actcagctgg
240
ccgtaccctt cgtcatcgcc cggggcaccg acctcgacgg cncagcgtgc acggcaacga
300
ccacc
305
```

```
<210> 2610
<211> 98
<212> PRT
<213> Homo sapiens
```

```
<400> 2610
Met Met Ser Gly Lys Asp Asp Pro Gly Met Ala Lys Val Tyr Gly Phe
   1                               5                10         15
Val Asp Thr Ser Leu Thr Ile Pro Ile Arg Ser Ser Gly Asp Pro Cys
                      20                    25          30
Val Pro Trp Thr Pro Ile Ala Tyr Glu Lys Ile Phe Phe Phe Pro Pro
                        35                     40           45
Lys Lys His Pro Pro Leu Ala Ser Val Lys Val Leu Pro Arg Gly Arg
    50                          55                  60
His Leu Gly Cys His Arg Arg Gln Ile Thr Gln Leu Ala Val Pro Phe
65                                70                   75              80
Val Ile Ala Arg Ala Thr Asp Leu Asp Gly Xaa Ala Cys Thr Ala Thr
                       85                             90             95
Thr Thr
```

```
<210> 2611
<211> 342
<212> DNA
<213> Homo sapiens
```

<400> 2611
 gccgccgga tcgacggcga ctctcgacc agctgggtgt ccagctcgct gcaaaccgct
 60
 gtggggcaat ggcttcaggt ggacttcgac catccggtga ccaacgcgac catcaccctg
 120
 acgcccagcg ccaccgctgt cggagctcag gtgcgccgcg tcgaggtggc aacagccaac
 180
 ggcaccagca caattcgctt cgaccagccc ggcaagccgc tgacggcggc gctgcctac
 240
 ggcgagacct catgggtccg gttcaccgcg accggcaccc acgacggctc ccccggcgtg
 300
 cagttcggca tcaccgactt ctccgtgacg cagtacgacg cg
 342

<210> 2612
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 2612
 Ala Ala Ala Ile Asp Gly Asp Ser Ser Thr Ser Trp Val Ser Ser Ser
 1 5 10 15
 Leu Gln Thr Ala Val Gly Gln Trp Leu Gln Val Asp Phe Asp His Pro
 20 25 30
 Val Thr Asn Ala Thr Ile Thr Leu Thr Pro Ser Ala Thr Ala Val Gly
 35 40 45
 Ala Gln Val Arg Arg Val Glu Val Ala Thr Ala Asn Gly Thr Ser Thr
 50 55 60
 Ile Arg Phe Asp Gln Pro Gly Lys Pro Leu Thr Ala Ala Leu Pro Tyr
 65 70 75 80
 Gly Glu Thr Ser Trp Val Arg Phe Thr Ala Thr Gly Thr Asp Asp Gly
 85 90 95
 Ser Pro Gly Val Gln Phe Gly Ile Thr Asp Phe Ser Val Thr Gln Tyr
 100 105 110
 Asp Ala

<210> 2613
 <211> 414
 <212> DNA
 <213> Homo sapiens

<400> 2613
 acgcgtgtgg gttgtgcaca gggcatggct gctctggaca ggcctgggccc ctgggcatca
 60
 ttctcctcct ccaaaagggtg agggctctgac ctaatggtac tttgtctgat gttttccaga
 120
 tatgccctta ctgggaaggg ccaagtgggc aggagagtc tgggggtggag cgaggtgggg
 180
 ctgggaagca ctctgcttt tctgctgccc cagaacgaat gcaagttctg gcagcttctc
 240
 ctctcctcgg gaggaggaaa ggagggtcgc cctccaggtc tcaggctgag ggagtgggct
 300

ggagaccctc tagatggcca gcagaggctg gcctctgtga gaaggcttcc ttgcgtgact
360
ctggggcccc tcccaggctc tcctcgtggc aggcaggac ttgggccagc atgg
414

<210> 2614
<211> 107
<212> PRT
<213> Homo sapiens

<400> 2614
Met Val Leu Cys Leu Met Phe Ser Arg Tyr Ala Pro Thr Gly Lys Gly
1 5 10 15
Gln Val Gly Arg Gln Ser Leu Gly Trp Ser Glu Val Gly Leu Gly Ser
20 25 30
Thr Pro Ala Phe Leu Leu Pro Gln Asn Glu Cys Lys Phe Trp Gln Leu
35 40 45
Leu Leu Leu Leu Gly Gly Gly Lys Glu Gly Ser Pro Pro Gly Leu Arg
50 55 60
Leu Arg Glu Trp Ala Gly Asp Pro Leu Asp Gly Gln Gln Arg Leu Ala
65 70 75 80
Ser Val Arg Arg Leu Pro Cys Val Thr Leu Gly Pro Leu Pro Gly Ser
85 90 95
Pro Arg Gly Arg Gln Gly Leu Gly Pro Ala Trp
100 105

<210> 2615
<211> 394
<212> DNA
<213> Homo sapiens

<400> 2615
nnngccgccc cctcggccc cagcgcgctt cttttgcgcn ncgacgtcag ccagaaggcg
60
gacgtcgacg ccattgctgaa ggaaacgctg gccagttcg gccacatcga tatectcgtc
120
aacaatgctg gcgtcacgca tgcggccgat ttcctcgacg tgtgcgaaga cgatttcgac
180
cgggtcatgc gcattaacct gaaatcgatg ttcctgtgcg gccaggccgc ggcgcgcgag
240
atggtcaagc gcaacagcgg ctgcattcatc aacatgtcca gcgtgaatgc ggaactggcc
300
attccgaacc aggtgccgta cgtggtgtcg aaaggcgcca tcaaccagct gaccaaggctc
360
atggccttga acctggcgcc gcacggtgctg cgct
394

<210> 2616
<211> 131
<212> PRT
<213> Homo sapiens

<400> 2616
Xaa Ala Ala Ala Leu Gly Arg Ser Ala Leu Leu Leu Arg Xaa Asp Val

```

      1             5             10             15
Ser Gln Lys Ala Asp Val Asp Ala Met Leu Lys Glu Thr Leu Ala Gln
      20             25             30
Phe Gly His Ile Asp Ile Leu Val Asn Asn Ala Gly Val Thr His Ala
      35             40             45
Ala Asp Phe Leu Asp Val Cys Glu Asp Asp Phe Asp Arg Val Met Arg
      50             55             60
Ile Asn Leu Lys Ser Met Phe Leu Cys Gly Gln Ala Ala Ala Arg Glu
      65             70             75             80
Met Val Lys Arg Asn Ser Gly Cys Ile Ile Asn Met Ser Ser Val Asn
      85             90             95
Ala Glu Leu Ala Ile Pro Asn Gln Val Pro Tyr Val Val Ser Lys Gly
      100            105            110
Ala Ile Asn Gln Leu Thr Lys Val Met Ala Leu Asn Leu Ala Pro His
      115            120            125
Gly Ala Arg
      130

```

<210> 2617

<211> 513

<212> DNA

<213> Homo sapiens

<400> 2617

```

naccggttgg catcatgctc acagcactgg gggttccctt ctttcttttc ctctcagaa
60
agacattgtg agatgggaaa tatcatggaa acacctatac tttccggctc ccacttgaac
120
gtcaccttgg gaaatcacia gattctcaat gacgtctccg tatcattcca agcgggagtt
180
atgcacgcca tacttggecc caacgggttct gggaagacca ccttggtacg cacgttatgc
240
ggagccctct ccccgagtc ggggagcgtc aaattcgatg gaacggatct atccacgatg
300
tcgcatactt gtatcgcgcg tcgtattgcg atcgtctggc agagcgcgac cgctccctct
360
gacctaccg tacgtcacct cgttggctac gggagatatg cccacacacc gtggtggcag
420
ataagggaca ccagcgccga cagccatgtg gaacaagcaa tggagctggc cgatgtcacg
480
tgcttcgccg atcgacgct caccactctc tca
513

```

<210> 2618

<211> 171

<212> PRT

<213> Homo sapiens

<400> 2618

```

Xaa Arg Leu Ala Ser Cys Ser Gln His Trp Gly Phe Pro Ser Phe Phe
1             5             10             15
Ser Ser Ser Glu Arg His Cys Glu Met Gly Asn Ile Met Glu Thr Pro
20            25            30
Ile Leu Ser Gly Ser His Leu Asn Val Thr Leu Gly Asn His Lys Ile

```

```

      35              40              45
Leu Asn Asp Val Ser Val Ser Phe Gln Ala Gly Val Met His Ala Ile
  50              55              60
Leu Gly Pro Asn Gly Ser Gly Lys Thr Thr Leu Val Arg Thr Leu Cys
  65              70              75              80
Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
      85              90              95
Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
      100              105              110
Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
      115              120              125
Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
      130              135              140
Ser Ala Asp Ser His Val Glu Gln Ala Met Glu Leu Ala Asp Val Thr
  145              150              155              160
Cys Phe Ala Asp Arg Arg Val Thr Thr Leu Ser
      165              170

```

<210> 2619

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2619

```

nnaaatttcg acgaccttga ggttttcctc aagctgttgc cgcgttcggc anccggggaa
60
cggatgaacc cgtacaactc ggtgtggagc ggtgtgaccg acggtgacgg gccgcaggaa
120
cagcacgtca ttttccttga taacggtcgt accgacgtgc ttgccgacac cttggtcgcg
180
gaagtgttgc ggtgcatccg gtgtgcttcg tgtatcaata tctgcccggg ttacgagcgg
240
gcgggcggtc acccttacgg ctcggtgtac cccggggccga ttggtgcggg gctcaatccg
300
cagctgcggg gcgtggagca tcccgctgat cgtgggtctgc catacgcg
348

```

<210> 2620

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2620

```

Xaa Asn Phe Asp Asp Leu Glu Val Phe Leu Lys Leu Leu Pro Arg Ser
  1              5              10              15
Ala Xaa Gly Glu Arg Met Asn Pro Tyr Asn Ser Val Trp Ser Gly Val
      20              25              30
Thr Asp Gly Asp Gly Pro Gln Glu His Val Ile Phe Leu Asp Asn
      35              40              45
Gly Arg Thr Asp Val Leu Ala Asp Thr Leu Gly Arg Glu Val Leu Arg
      50              55              60
Cys Ile Arg Cys Ala Ser Cys Ile Asn Ile Cys Pro Val Tyr Glu Arg
  65              70              75              80
Ala Gly Gly His Pro Tyr Gly Ser Val Tyr Pro Gly Pro Ile Gly Ala

```


	85		90		95
Val	Leu Asn Pro Gln Leu Arg Gly	Val Glu His Pro Val Asp Arg Gly			
	100	105	110		
Leu Pro Tyr Ala					
	115				

<210> 2621
 <211> 1485
 <212> DNA
 <213> Homo sapiens

<400> 2621
 acgcgtgcag gtaaaccaga ggccgtgtga ccagctcagt gctggtttac ggaacaactc
 60
 ttacttttaa aaattacttg ttccccaaa ttgttgagtg ccgccgtttg gtttcctatg
 120
 ttttctttcc ctgttttgat tttgctgaag ggagaggtgg tggtaggttag gatcagagct
 180
 ctcttggeat ccgtggggag gatttgctgg tggtaggttc gggctcatgc ccagacacac
 240
 tcaactgccc gtctgtccaa ggctccccc tcccctttgc tggtagggagg agctcgtgtg
 300
 ctcttgggc gcttactgga agggcgttt tcagagctgc agggacaggg tgagcagctg
 360
 aagggttagg agggaagccg gccccgctc tgcagaagct gcatttcagc tgaatctgtg
 420
 tttcagcctc agttggttgc accgtagacc cctctcctcc cggatgggtca tgtttttgtc
 480
 acattagaga ataaacagcc acacacacat ttttttttcc tttaaaacag taacttgaa
 540
 atatgaaaag gccagaagga ggagcaaggg ctgttttctg gagtggttga ggtgttgtcc
 600
 tgcagttgtc attgtcttct ccaccgggct gttcccattt atttctgtg gaactgaatc
 660
 cctctccct ccactccttg ggagcccagg tggtccttg ccaccattca ggctttccaa
 720
 gaagccaacc accttgaga ttttttttct tgaatttcgc tgttttcttc tgcttccttt
 780
 agataaaaag cagctcaaga gacctatct tagggatgag aaaaacatgc atattaattc
 840
 catctgagtg attgtcagt taaggccttt taaaacaaaa gcaagttctt tgtaggaat
 900
 tgggtcaaat tcactctctt ctttaagccc atcaactccc aggaagggtt gagttactca
 960
 gttacctaa gttgtattc atccaaatca ttttctagag tcaactgtata agggctctatg
 1020
 agtagctgtg tatgaataaa tattacctgt ctacctcaaa atacacatac tgctgaagca
 1080
 ttctgtacaa ccgtgtgtta tcacagtgc gttttaagt taacngttga acttaggcac
 1140
 tttcctgtgt ggcggaataa gaaaggatnt aacagttaca agcctccaaa ttcagataaa
 1200
 attaaatcac agttcagatg aaactgaata tcattgtaat aatctcataa tatatatttg
 1260

taacttgnta gctatctttg aaatcactgn actttgcaat ggtgctaagc tgatagattt
 1320
 aaatacacag acgggcgagt ggcgcccgtg tcgatgtctt cagccagtgg tgaccctgct
 1380
 tttgtaaccg cgtaaacctg acaaaacctc agcagcagaa gtccctattt ttctaggagt
 1440
 ttatcgtgca gacagtcttc actacaggac tcggccctgg ggccc
 1485

<210> 2622

<211> 83

<212> PRT

<213> Homo sapiens

<400> 2622

Met	Phe	Ser	Phe	Pro	Val	Leu	Ile	Leu	Leu	Lys	Gly	Glu	Val	Val	Val
1				5					10				15		
Val	Arg	Ile	Arg	Ala	Leu	Leu	Ala	Ser	Val	Gly	Arg	Ile	Cys	Trp	Trp
		20					25						30		
Trp	Leu	Arg	Ala	His	Ala	Gln	Thr	His	Ser	Leu	Pro	Arg	Leu	Ser	Lys
		35					40					45			
Ala	Ser	Pro	Ser	Pro	Leu	Leu	Val	Gly	Gly	Ala	Arg	Val	Leu	Leu	Gly
	50					55					60				
Arg	Leu	Leu	Glu	Gly	Arg	Phe	Ser	Glu	Leu	Gln	Gly	Gln	Gly	Glu	Gln
65					70					75					80
Leu	Lys	Gly													

<210> 2623

<211> 3524

<212> DNA

<213> Homo sapiens

<400> 2623

nggatccgaa ttcgcggccg cgctcgactgg agaggacggc gttattttta ttaactggag
 60
 gcgacggcgg ctgcggcgcc ggcgggaccc ccaggcctcc tccgggggat gaaaatcggc
 120
 agtgggttcc tgagtggcgg cggaggtacc ggcagtagcg gtggtagcgg ctccggcgcc
 180
 ggtggtagtg gcggcgccgg cggcgccggc agcagcggca ggagggcaga gatggaaccc
 240
 acctttcccc aggttatggt tatgttcaac caccgtcttc ccccggtcac cagcttcacc
 300
 cggccggcgg ggtcggccgc ccctcccccg caatgcgtgt taccctcctc tacctccgca
 360
 gccccggccg ctgagcccc cctccgcca gccccggaca tgactttcaa gaaggagccg
 420
 gcggcgtcag ccgcggcctt cccctcgag aggcctcct ggggggttctt gcagtctttg
 480
 gttagcatca aacaggagaa acccgcgat cctgaggagc agcagtccca ccaccacat
 540
 caccaccacc actatggggg gctgttcgct ggagctgaag agaggtctcc aggcctagga
 600

ggcgggtgaag ggggggagtca cggcgtcatc caggacctca gtattctcca ccagcatgtc
660
cagcagcaac cagcccagca ccaccgtgac gtattactca gcagcagtag caggactgat
720
gaccaccatg gcaactgagga gccaaagcag gacactaatg tcaaaaaggc aaaaaggcca
780
aagccagaat ctcaggggaat caaagccaag aggaagccaa gtgcatcttc caaaccttct
840
ttggttggag atggagaagg tgccatcctc tccccaagtc agaaacctca tatctgtgat
900
cactgtagtg ctgctttccg aagctcctat cacctgcgga gacatgtcct cattcataca
960
ggagaaagac ctttccagtg cagccagtgt agtatgggtt tcattcagaa atacctacta
1020
cagagacatg agaaaattca tagtagagag aagccatttg gatgtgatca gtgcagcatg
1080
aagtttattc agaagtacca tatggagaga cacaagagga cacatagtgg agaaaagcca
1140
tataagtgtg acacttgcca acagtatttt tcaaggactg atagattgtt gaagcacagg
1200
cgcacatgtg gtgaagtcac agttaagga gccactagtg cagaacctgg gtcacaaac
1260
cataccaata tgggtaatct ggctgtgttg tctcagggaa atacaagttc ttcaaggaga
1320
aaaacaaagt caaaaagcat agctattgaa aataaggaac agaagaccgg taaaacaaat
1380
gaatcgcaaa tttcaaataa tataaacatg cagagttact cagtagaaat gcctaccgtg
1440
tcttccagtg gaggcataat tggcactgga atagatgaac tgcagaagag ggtgcaaaaa
1500
ttgatcttta agaaaggaag cagaaagaat acagataaaa actaccttaa ctttgtgtca
1560
ccattaccag acatagtagg acagaaatcc ttgtctggaa aaccaagtgg ctcacttggc
1620
atagtatcaa ataatagtgt ggagaccatt ggtcttctcc aaagtacaag tggcaaacaa
1680
ggtcagataa gtagtaatta tgatgatgcc atgcagtttt caaagaaaag aagatattta
1740
ccaactgcca gcagcaacag tgccttttct ataaacgtag gacacatggc ctccaacag
1800
tctgtcattc agtctgcagg tgtcagtgtt ttggacaatg aggcaccatt gtcacttatt
1860
gactcctcag ctctaaatgc tgaaattaaa tcttgtcatg acaagtctgg aattcctgat
1920
gagggtttac aaagtatttt ggatcaatac tccaacaaat cagaaagcca gaaagaggat
1980
cctttcaata ttgcagaacc acgagtggat ttacacacct caggagaaca ctcagaattg
2040
gttcaagaag aaaatttgag cccaggcacc caaacacctt caaatgataa agcaagtatg
2100
ttgcaagaat actccaaata cctccaacag gcttttgaaa aatccactaa tgcaagtttt
2160
actcttgac acgggtttcca atttgtcagt ttgtcttcac ctctccacaa ccacactttg
2220

tttccagaaa aacaaatata cactacgtct cctttggagt gtggtttcgg ccaatctgtt
 2280
 acctcagtgt tgccatcttc attgccaaag cctccttttg ggatgttggt tggatctcag
 2340
 ccaggtcttt atttgtctgc tttggatgct acacatcagc agttgacacc ttcccaggag
 2400
 ctggatgata tgatagattc tcagaagaac ttagagactt catcagcctt ccagtcctca
 2460
 tctcagaaat tgactagcca gaaggaacag aaaaacttag agtcttcaac aggttttcag
 2520
 attccatctc aggagttagc tagccagata gatcctcaga aagacataga gcctagaaca
 2580
 acgtatcaga ttgagaactt tgcacaagcg tttggttctc agtttaagtc gggcagcagg
 2640
 gtgccaatga cctttatcac taactctaata ggagaagtgg accatagagt aaggacttca
 2700
 gtgtcagatt tctcagggtg tacaatatg atgtctgatg taagttagcc atgtagtaca
 2760
 agagtaaaga caccaccag ccagagttac aggttaaggct ccaaaagtgg ccaggctgga
 2820
 ggtcttctaa tgtaattttg ttttattttg agaacactgc cattggaatg tttctacacg
 2880
 atcctattaa gaataatgtg atgcccttcc aatgcaactt ttcataattt gtttattttg
 2940
 ttagcgtgat ttttagctctg tttgtattat gatttttaata caaaatcaat agattaaaaa
 3000
 tagtttgaca ttcaaagtga caatgttttag caatcaaatt tacatgtata gatcgtcagg
 3060
 gaatagccca aatgtttttaa acgcaaaaaa aaagacaaaa aaaaaccaa aaaaaaaaaac
 3120
 ctacaaaaaa aactttgttg ctaggattaa ggttattcta attgctttac tctcaggaaa
 3180
 gtgtaataac gcatgggaat tctgtacgtt atcactgtaa tggaatatcc aatttacaga
 3240
 tagtatgata tacatttcat catttaagta agggatcgaa aacatttcaa attgctctat
 3300
 ctgggctgat agacatttcg tcatttaagt aagggatcga agacatttca aattgctatc
 3360
 tccatctggg ctgatccaaa attctgagat tgttggttac ctatattttg ttgcagcttt
 3420
 taaatgtact ctgaacttcc aaaccacatt cattccagcc tggtagaaca aatattcttg
 3480
 gatctttgat caaagcctgg aatgatagct ttaatacaaa aaaa
 3524

<210> 2624

<211> 895

<212> PRT

<213> Homo sapiens

<400> 2624

Met Lys Ile Gly Ser Gly Phe Leu Ser Gly Gly Gly Gly Thr Gly Ser
 1 5 10 15
 Ser Gly Gly Ser Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly

[illegible]

	450					455					460				
Leu	Ile	Phe	Lys	Lys	Gly	Ser	Arg	Lys	Asn	Thr	Asp	Lys	Asn	Tyr	Leu
470					475					480					
Asn	Phe	Val	Ser	Pro	Leu	Pro	Asp	Ile	Val	Gly	Gln	Lys	Ser	Leu	Ser
				485					490					495	
Gly	Lys	Pro	Ser	Gly	Ser	Leu	Gly	Ile	Val	Ser	Asn	Asn	Ser	Val	Glu
			500				505					510			
Thr	Ile	Gly	Leu	Leu	Gln	Ser	Thr	Ser	Gly	Lys	Gln	Gly	Gln	Ile	Ser
		515				520					525				
Ser	Asn	Tyr	Asp	Asp	Ala	Met	Gln	Phe	Ser	Lys	Lys	Arg	Arg	Tyr	Leu
	530					535				540					
Pro	Thr	Ala	Ser	Ser	Asn	Ser	Ala	Phe	Ser	Ile	Asn	Val	Gly	His	Met
545					550					555					560
Val	Ser	Gln	Gln	Ser	Val	Ile	Gln	Ser	Ala	Gly	Val	Ser	Val	Leu	Asp
			565						570					575	
Asn	Glu	Ala	Pro	Leu	Ser	Leu	Ile	Asp	Ser	Ser	Ala	Leu	Asn	Ala	Glu
			580						585				590		
Ile	Lys	Ser	Cys	His	Asp	Lys	Ser	Gly	Ile	Pro	Asp	Glu	Val	Leu	Gln
	595					600					605				
Ser	Ile	Leu	Asp	Gln	Tyr	Ser	Asn	Lys	Ser	Glu	Ser	Gln	Lys	Glu	Asp
	610					615				620					
Pro	Phe	Asn	Ile	Ala	Glu	Pro	Arg	Val	Asp	Leu	His	Thr	Ser	Gly	Glu
625					630					635					640
His	Ser	Glu	Leu	Val	Gln	Glu	Glu	Asn	Leu	Ser	Pro	Gly	Thr	Gln	Thr
			645						650					655	
Pro	Ser	Asn	Asp	Lys	Ala	Ser	Met	Leu	Gln	Glu	Tyr	Ser	Lys	Tyr	Leu
			660					665					670		
Gln	Gln	Ala	Phe	Glu	Lys	Ser	Thr	Asn	Ala	Ser	Phe	Thr	Leu	Gly	His
		675					680					685			
Gly	Phe	Gln	Phe	Val	Ser	Leu	Ser	Ser	Pro	Leu	His	Asn	His	Thr	Leu
	690					695				700					
Phe	Pro	Glu	Lys	Gln	Ile	Tyr	Thr	Thr	Ser	Pro	Leu	Glu	Cys	Gly	Phe
705					710					715					720
Gly	Gln	Ser	Val	Thr	Ser	Val	Leu	Pro	Ser	Ser	Leu	Pro	Lys	Pro	Pro
			725						730					735	
Phe	Gly	Met	Leu	Phe	Gly	Ser	Gln	Pro	Gly	Leu	Tyr	Leu	Ser	Ala	Leu
			740					745					750		
Asp	Ala	Thr	His	Gln	Gln	Leu	Thr	Pro	Ser	Gln	Glu	Leu	Asp	Asp	Leu
		755					760					765			
Ile	Asp	Ser	Gln	Lys	Asn	Leu	Glu	Thr	Ser	Ser	Ala	Phe	Gln	Ser	Ser
	770					775					780				
Ser	Gln	Lys	Leu	Thr	Ser	Gln	Lys	Glu	Gln	Lys	Asn	Leu	Glu	Ser	Ser
785					790					795					800
Thr	Gly	Phe	Gln	Ile	Pro	Ser	Gln	Glu	Leu	Ala	Ser	Gln	Ile	Asp	Pro
			805						810						

885

890

895

<210> 2625

<211> 1398

<212> DNA

<213> Homo sapiens

<400> 2625

```

nttctgactc cagcagggac tcacaagtct gagagggatc gccccgccac tcccacaaga
60
caccacgaga aacgcctctt ttgcagcagt ttaaggtacg ttaggggtca ccgtgttgca
120
ttgtgggaag tatagggcgg caagcggagg aggcgtggcg agcggatcat ccgcttccgg
180
agtcgaggtt ttcgggcttg taccgcttgg cggtgcgggc tgggtgcggc ttgcaggttc
240
tttctgtgtt tgttctctgc cctgccaagg ccgtagagct ggtgcgtgcg ggtagcgggg
300
ctctccgagg agccgcacgc cggcggcacc atgggtccacc tcactactct cctctycaag
360
gcctaccgtg ggggccactt aaccatccgc cttgccctgg gtggctgcac caatcggccg
420
ttctaccgca ttgtggctgc tcacaacaag tgtcccaggg atggccgttt cgtagagcag
480
ctgggctcct atgatccatt gcccaacagt catggagaaa aactcgttgc cctcaaccta
540
gacaggatcc gtcattggat tggctgcggg gccacctct ctaagcctat ggaaaagctt
600
ctgggtcttg ctggcttttt ccctctgcat cctatgatga tcacaaatgc tgagagactg
660
cgaaggaaac gggcacgtga agtcctgtta gcttctcaga aaacagatgc agaagctaca
720
gatacagagg ctacagaaac ataaatgagc tgactttagt gagcatagca gtgggaacaa
780
ggtaagggtc cttttgaaac actgcagcga tcttaatttt gttagatttg gaggttcaata
840
aatggagtat cctgagttgc ccttgccttt ctggcctggc ctgcacaggg cccagggaga
900
gatttgttct tgtgtgactt agagctgggt gtgggtacta attagctttt ttcgactttg
960
tcttgggata gacagtggct atgggaggat tggacttttg agttgggctc tgggtctctt
1020
ggacaacttt acaatttact ggcttccaag acttctgct tcaaaacccc cagccagact
1080
attcatggcc cattcagatc ttcattgtca tcccacaagt gcaagaacag ttaacctttc
1140
ttaattgatt tttgtaattg gaggtttata ttgtcttgcc taatgcatat tctctttttt
1200
tttttttttg agacggagtc ttgttctgtt gccaggaggc cgatgctgca gtgaactgtg
1260
attgttccac tacagtccag cctgggtgac agagaaaaga aaaagaaaac attacataat
1320
ttggctagag cataataatt tgattttctg gtttttgaaa atttgagttg caataaaaagg
1380

```

atatttcagt gtgcgaaa
1398

<210> 2626
<211> 137
<212> PRT
<213> Homo sapiens

<400> 2626
Met Val His Leu Thr Thr Leu Leu Cys Lys Ala Tyr Arg Gly Gly His
1 5 10 15
Leu Thr Ile Arg Leu Ala Leu Gly Gly Cys Thr Asn Arg Pro Phe Tyr
20 25 30
Arg Ile Val Ala Ala His Asn Lys Cys Pro Arg Asp Gly Arg Phe Val
35 40 45
Glu Gln Leu Gly Ser Tyr Asp Pro Leu Pro Asn Ser His Gly Glu Lys
50 55 60
Leu Val Ala Leu Asn Leu Asp Arg Ile Arg His Trp Ile Gly Cys Gly
65 70 75 80
Ala His Leu Ser Lys Pro Met Glu Lys Leu Leu Gly Leu Ala Gly Phe
85 90 95
Phe Pro Leu His Pro Met Met Ile Thr Asn Ala Glu Arg Leu Arg Arg
100 105 110
Lys Arg Ala Arg Glu Val Leu Leu Ala Ser Gln Lys Thr Asp Ala Glu
115 120 125
Ala Thr Asp Thr Glu Ala Thr Glu Thr
130 135

<210> 2627
<211> 320
<212> DNA
<213> Homo sapiens

<400> 2627
acgcgtgaag ggggtggtgga atgcacaaaa aaaacacctt gaaggagtgc ctttctcttg
60
accagagga acgaaagaaa gctgagtcac aaataaaciaa ttctgccgtg gaaatgcagg
120
tgcagtcagc cctagccttt ttgggaacag agaatgatgt tgaactgaag ggggcgctag
180
atttagaaac ctgtgagaag caagatataa tgccagaagt ggacaagcag tctggttcgc
240
cagaaagccg agtagaaaac aactgaaca tacatgaaga tttagattag gttaaactca
300
ttgaatatta cctgacttag
320

<210> 2628
<211> 90
<212> PRT
<213> Homo sapiens

<400> 2628
Met Phe Ser Val Phe Ser Thr Arg Leu Ser Gly Glu Pro Asp Cys Leu

1	5	10	15
Ser Thr Ser Gly Ile Ile Ser Cys Phe Ser Gln Val Ser Lys Ser Ser			
20	25	30	
Ala Pro Phe Ser Ser Thr Ser Phe Ser Val Pro Lys Lys Ala Arg Ala			
35	40	45	
Asp Cys Thr Cys Ile Ser Thr Ala Glu Leu Phe Ile Cys Asp Ser Ala			
50	55	60	
Phe Phe Arg Ser Ser Gly Ser Arg Glu Arg His Ser Phe Lys Val Phe			
65	70	75	80
Phe Leu Cys Ile Pro Pro Leu His Ala			
85	90		

<210> 2629

<211> 650

<212> DNA

<213> Homo sapiens

<400> 2629

acgcgtgaag ggtctacagg cagtgagtga aggccaggag cagggcccag gccaggcacg
60
accaccgagg ggatgaactt cacagtgggt ttcaagccgc tgctagggga tgcacacagc
120
atggacaacc tggagaagca gtcctctgccc cccatctgcc tggagatggt ctccaaacca
180
gtggtgatcc tgccctgcc acacaacctg tgccgcaaat gtgccaacga cgtcttccag
240
gtgggtgccca gggacgggca gggccaggta aagcaatgca gacctgtggg ggactgatca
300
ggtcagagct gagaccccag aaggtgatgg atagagtgct ctctgagggtg ggtggtggct
360
gttgtggctg gagagcagaa gggctgggggt ccaagcaaat cccagagcaa gcatgagtcn
420
agcagctgcc ctgcaggctg gcaggtacag cctgtgcata gacggcagct ggagtgtctg
480
gatctaccaa ggaaagtaga ccctgtggaa actgggaggg agggatatccc acaccgggct
540
ttataagagc ctgtgccaga ctctgcattc cagtttggag tttcagactt cgagagcatt
600
gtggaaaata cggagaaaag attaattgaga taatgaaacg ttaaaaaaaaaa
650

<210> 2630

<211> 58

<212> PRT

<213> Homo sapiens

<400> 2630

Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met			
1	5	10	15
Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg			
20	25	30	
Lys Cys Ala Asn Asp Val Phe Gln Val Gly Ala Arg Asp Gly Gln Gly			
35	40	45	
Gln Val Lys Gln Cys Arg Pro Val Gly Asp			

50

55

<210> 2631
<211> 5124
<212> DNA
<213> Homo sapiens

<400> 2631
caagatattg aaaggctaata acatcagagt gatatcatag atcgtgtggt atatgacttg
60
gataacccaa attacacccat tccagaagag ggagatattt tgaaatttaa ctccaaattt
120
gagtctggga atctgcgcaa agtaattcaa attagaaaaa atgaatatga tcttattctg
180
aactcagaca taaacagcaa tcattatcat cagtggtttt actttgaagt cagtggaaatg
240
cgaccagggtg ttgcttacag gtttaacatc attaactgtg aaaagtccaa cagtcagttt
300
aattatggta tgcaaccact catgtattcg gttcaggaag cattaaatgc cagaccatgg
360
tggattcgta tggggactga catttggtac tataaaaatc atttctcaag aagttcagtt
420
gctgcagggtg ggcaaaagggt aaaatcctac tatacaatta catttactgt caattttcca
480
cataaagatg atgtttgcta ctttgcttat cactatccat atacgtattc aactttacag
540
atgcatcttc aaaaattgga atcagcacac aatcctcagc aaatctattt tcggaaagat
600
gtgttatgtg aaaccctgtc tggaaacagc tgccccttgg tgactataac agcaatgcc
660
gagtctaatt attatgaaca tatctgccat ttcagaaatc gcccttacgt tttcttgtct
720
gctcgggtac atcctggaga aactaatgca agttgggtta tgaaaggaaac gttggaatat
780
ctcatgagca ataacccac tgcctcagagc ttactagaat cttatatttt taaaattgtc
840
cctatgtaa atccagatgg tgcattcaat ggaaatcatc gctgttcttt aagtggagag
900
gatttgaata ggcagtggca aagtccaagt ccggatttac atcctacaat ttaccatgct
960
aaggggctgt tgcaataactt ggctgcagtg aagcgtttac ccttggttta ttgtgattat
1020
catggccatt cccgaaagaa gaatgtattt atgtatgggt gcagcatcaa agagacagtg
1080
tggcatacca atgataatgc aacttcatgt gatgttgtgg aggatacggg atacaggaca
1140
ttgcctaaga tactgagcca tatcgcccca gcattttgca tgagcagctg tagcttcgta
1200
gtggaaaaat ctaaagaatc cacagcacgt gttgtagttt ggagggaat aggagtacaa
1260
agaagttata ccatggagag tactttatgt ggctgtgatc agggaaaata caagggttta
1320
cagattggta ccgagaact ggaagagatg ggagcaaaat tttgtgttgg tcttttacgt
1380

ttgaaaagac tgacctctcc attggagtat aatctgcctt ccagcctgct tgactttgaa
1440
aatgatttaa ttgaatcaag ctgcaaagta actagcccta ccacttatgt cttggatgaa
1500
gatgaacctc gattccttga agaagttgat tacagtgcag aaagtaatga tgagtttagat
1560
attgagttgg ctgaaaatgt aggagattat gaaccttctg ctcaagaaga agtactttct
1620
gactctgaat tatcaagaac atacctacct tgagcccgtt gccatctctt gttaactgca
1680
agaataaat gaaatatctt ggtttttatt tcccaggaag cttgagagaa atgagtttat
1740
acagagctga ctcaaaaaga caaaaagtaa cttggggcag tttggtttca agataataaa
1800
tgtgttatta attaataata aaattggcgc ttgttttatt ttcgatattc aatgcacttt
1860
atgtagcatt gaatgatcaa atattggatt tacctttaaa aaaaaaacct gagtatcatt
1920
gcatgaattt ttatctccct atgggttatat cctgcatcaa gtggataatt ttgaagtgtg
1980
ttcagaatat aaaattgaaa ttttagagtt gttgaaaatc ctgacttggt gaaaactaat
2040
atatatgtac atggatttct atagatgtgt ttgttttagaa gtgggtagat attgcagata
2100
agactgttct tcagaatcat gttaactatt gggttgtgac tgaagtagtc cagggtttgc
2160
cttgaaacca ttacattcta catttaccaa attaaacaaa taaaaactgt attaaatgtc
2220
gcattcattt tgtcatcttc ttttaaccagc tcagattatt tgatgtatag aactttgtga
2280
gaatgtgata aaaaccaga attggacaca gtgataaaaa gttgttttta agaaagtgtc
2340
gggattacag gcgtgcgcca ccgtgcctgg ctaaatacctt tcttgtaatg aaacctacct
2400
gggttttagc cctcttgctg caagaatgac tttattttta aataaaataa agcaaataca
2460
ttgactttgg ataagtgtt taagaactaa gtttctgata taataaaaca acctccaaaa
2520
gataacctat tgcagatttt cgccaggatt cagggtgctta ggttttggca catatcttcc
2580
tcacttttct ctatagtgtt ttttaacctgt tataattgga atgatagaga tgtatttcag
2640
aattttgcatt ggtccaaatc aatgattttt ctttttaata tgtaaagtat ttcattaaca
2700
gtgtagattc tttctgatgt ttggggagcc atgttttaaaa atgtagtatg gagcaattga
2760
aaaaggggtc tttttcccta gcctaattct tactaatctc agaaaacaaa gatcaaatag
2820
actgtgaagt tgaactagtc ctcttagtgt agtaacacaaa tttaggaaag atcaggataa
2880
tttaggaagg aaagtaatca tttatttaata tatttataat tataaacaat tattttatgt
2940
tttgtatatt ttatgtataa aacaattaca tgttttatta tagttatact tcttcagaga
3000

gtagattatg gagccaccat gtccatacag ttagttgttc cttggtattc ttggattgat
3060
tccaggaccc cccacagtta cccaaatcca cagatgctga agtctctgat ataaaatgga
3120
gtagtatttg catttaacct atggacatcc tcctgtatgc tttaaatcat ctctagatta
3180
cttataatac ctaatacaat ataaatataa atgctctgta aatagtttta ttgtatagt
3240
tgtgtgtgtg ttttaagaga cgaggactca caatgggaca ctttgaccag gctggtctcg
3300
aactcctggg cctacacaat cctccacact cggcgtcgca agtagctggg actacaggta
3360
ctcaccacta tgccctggcag ttttttaaat ttgcgttttt aaaaattggt tattatttat
3420
tgaatatttt ctacctgaga ttgacttaat ctgtggatat ggaacctata gatatggagg
3480
gctggctgta tatgaatttg tttttggctt ttacaaaatt agaaattaaa agtaactaca
3540
gttactataa tgtgcagaat gactcaaata tttccattta ttatgttagt gtaaaaaactc
3600
ctaactacgt attataatat tttatattaa tgaagtactt tagcatacat tatgagcctg
3660
aataaagctt tttattaaat attcacaaga ttgaaggaga aattctttat agttaggaaa
3720
tgattttttc ataaacaata aatagctttg aaaatataaa aaaaaattta gggctgggtg
3780
cagaggctca tgccctgtagt cccagcactc tgagaggccg aggcgggtgg atcacttgag
3840
gtgaggagtt caagatcagc atggccaaca tggtgaaact ccacctccac gaaaaataca
3900
aaaattagcc aggcattggtg gcatgcgcct gtaatcctag ctacttgggt ggctgaggca
3960
tgagactcac ttgaacctgg gaggcagagg ttgcagcagt gagccgagat caagccgctg
4020
cactccagct ggggcgacaa agcaagactg tctcaaaaaa taaaaacaaa aaaattaaaa
4080
taaaatccta actttcctag ttagaaatat aattaacttt tattggctat tagtagctaa
4140
aattgccctt atttttgctt ctgtggcctc attttttttc tcggttattc agtatttaaa
4200
ttatggctta gatgtcttca atgctatagt cctgaaaatt aatgatctac gttgtgcagc
4260
agtgatggga tctgataaac tgagtctgat gatggagttt agatttattt cctttacctt
4320
gcatttgga ctttgaatct cttaaatgtg gttttggtct agtccactgg ttctcacgtt
4380
gtaatgtgca tcagaatctt ctgaagacac agattgctga ttatgtagac ctgggggtgga
4440
ggccaagaa tgtgcattcc ttgcaaattc ccagggtggg atgctgcaga gccacacttt
4500
gagaatcact agtataatcc agtatgctct tccagcatca caccttcctt cctgagaatc
4560
acaggagtgt tgaactgcag attagcattg gggagaattt agatcaaact aatttgtaga
4620

atcaaggagg tcaagtaagg tcacaggggc acttggggtg agccagggtt ttagcccagg
 4680
 tcttctgaca actgcctcat gtccttacca caaaggagct gctatccttt gcctttcccc
 4740
 aaagagtga gactgcttaa agctcaagga tctttcttga atttgtgaaa tttgttcagg
 4800
 caaggtgaaa agcaaaaacc tatgggttcac attgactttt tgtattgac attgtctttt
 4860
 gaagacagga agtatgatca gtctctgccca cttgtgctag tttttgtgtg gtgttttagaa
 4920
 acatgggcat ttgtctggat cctaattaca aataagtaac ctagaattct cttcagatag
 4980
 tgcactaaca gcaatgaatc tattctaaat ttcaaatac caaattaaaa tgactgtatt
 5040
 agcataagta ctgaaatgga taatacaata aatgtattaa tggaattggt tttgtgcatg
 5100
 atacagaaat aatgatagt aacg
 5124

<210> 2632

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2632

Gln	Asp	Ile	Glu	Arg	Leu	Ile	His	Gln	Ser	Asp	Ile	Ile	Asp	Arg	Val
1				5					10					15	
Val	Tyr	Asp	Leu	Asp	Asn	Pro	Asn	Tyr	Thr	Ile	Pro	Glu	Glu	Gly	Asp
			20					25					30		
Ile	Leu	Lys	Phe	Asn	Ser	Lys	Phe	Glu	Ser	Gly	Asn	Leu	Arg	Lys	Val
		35					40					45			
Ile	Gln	Ile	Arg	Lys	Asn	Glu	Tyr	Asp	Leu	Ile	Leu	Asn	Ser	Asp	Ile
	50					55					60				
Asn	Ser	Asn	His	Tyr	His	Gln	Trp	Phe	Tyr	Phe	Glu	Val	Ser	Gly	Met
65				70					75					80	
Arg	Pro	Gly	Val	Ala	Tyr	Arg	Phe	Asn	Ile	Ile	Asn	Cys	Glu	Lys	Ser
			85					90					95		
Asn	Ser	Gln	Phe	Asn	Tyr	Gly	Met	Gln	Pro	Leu	Met	Tyr	Ser	Val	Gln
		100						105				110			
Glu	Ala	Leu	Asn	Ala	Arg	Pro	Trp	Trp	Ile	Arg	Met	Gly	Thr	Asp	Ile
	115					120					125				
Cys	Tyr	Tyr	Lys	Asn	His	Phe	Ser	Arg	Ser	Ser	Val	Ala	Ala	Gly	Gly
	130					135					140				
Gln	Lys	Gly	Lys	Ser	Tyr	Tyr	Thr	Ile	Thr	Phe	Thr	Val	Asn	Phe	Pro
145				150						155				160	
His	Lys	Asp	Asp	Val	Cys	Tyr	Phe	Ala	Tyr	His	Tyr	Pro	Tyr	Thr	Tyr
			165					170					175		
Ser	Thr	Leu	Gln	Met	His	Leu	Gln	Lys	Leu	Glu	Ser	Ala	His	Asn	Pro
		180						185				190			
Gln	Gln	Ile	Tyr	Phe	Arg	Lys	Asp	Val	Leu	Cys	Glu	Thr	Leu	Ser	Gly
	195					200					205				
Asn	Ser	Cys	Pro	Leu	Val	Thr	Ile	Thr	Ala	Met	Pro	Glu	Ser	Asn	Tyr
	210					215					220				
Tyr	Glu	His	Ile	Cys	His	Phe	Arg	Asn	Arg	Pro	Tyr	Val	Phe	Leu	Ser

```

225          230          235          240
Ala Arg Val His Pro Gly Glu Thr Asn Ala Ser Trp Val Met Lys Gly
          245          250          255
Thr Leu Glu Tyr Leu Met Ser Asn Asn Pro Thr Ala Gln Ser Leu Leu
          260          265          270
Glu Ser Tyr Ile Phe Lys Ile Val Pro Met Leu Asn Pro Asp Gly Val
          275          280          285
Ile Asn Gly Asn His Arg Cys Ser Leu Ser Gly Glu Asp Leu Asn Arg
          290          295          300
Gln Trp Gln Ser Pro Ser Pro Asp Leu His Pro Thr Ile Tyr His Ala
305          310          315          320
Lys Gly Leu Leu Gln Tyr Leu Ala Ala Val Lys Arg Leu Pro Leu Val
          325          330          335
Tyr Cys Asp Tyr His Gly His Ser Arg Lys Lys Asn Val Phe Met Tyr
          340          345          350
Gly Cys Ser Ile Lys Glu Thr Val Trp His Thr Asn Asp Asn Ala Thr
          355          360          365
Ser Cys Asp Val Val Glu Asp Thr Gly Tyr Arg Thr Leu Pro Lys Ile
          370          375          380
Leu Ser His Ile Ala Pro Ala Phe Cys Met Ser Ser Cys Ser Phe Val
385          390          395          400
Val Glu Lys Ser Lys Glu Ser Thr Ala Arg Val Val Val Trp Arg Glu
          405          410          415
Ile Gly Val Gln Arg Ser Tyr Thr Met Glu Ser Thr Leu Cys Gly Cys
          420          425          430
Asp Gln Gly Lys Tyr Lys Gly Leu Gln Ile Gly Thr Arg Glu Leu Glu
          435          440          445
Glu Met Gly Ala Lys Phe Cys Val Gly Leu Leu Arg Leu Lys Arg Leu
          450          455          460
Thr Ser Pro Leu Glu Tyr Asn Leu Pro Ser Ser Leu Leu Asp Phe Glu
465          470          475          480
Asn Asp Leu Ile Glu Ser Ser Cys Lys Val Thr Ser Pro Thr Thr Tyr
          485          490          495
Val Leu Asp Glu Asp Glu Pro Arg Phe Leu Glu Glu Val Asp Tyr Ser
          500          505          510
Ala Glu Ser Asn Asp Glu Leu Asp Ile Glu Leu Ala Glu Asn Val Gly
          515          520          525
Asp Tyr Glu Pro Ser Ala Gln Glu Glu Val Leu Ser Asp Ser Glu Leu
          530          535          540
Ser Arg Thr Tyr Leu Pro
545          550

```

<210> 2633

<211> 1569

<212> DNA

<213> Homo sapiens

<400> 2633

```

gattagtgaattgatggatgaataggggaagaagaacgagagacggatagacagatgaat
60
ggcaatatgctatgtgcttctgagcgagacacacaatggagtaccagcagggccctgctcc
120
ttcgccgaggaaactcagccgcatcctggaaaaggaagcacacgcagctcgtggagcag
180

```

ctagatgaga gctctgtctg agcccagcct cccagaacaa atgctcttcc aagccagcct
240
atctgtccca ggctgggcca ctctctccct aacacagcca cctcccttc attaccccca
300
ctccataccc ttctcccaac tttttgatgt ccctgtaggg ctggccagtc aggccagcc
360
aaagccccct cctcagtctc cacagaccca catgtgagca gcccaggccc atcgggtgctc
420
ctcagaggca gggctctgca ggtccatag ggctcaatgt caccaccctc tgcattggccc
480
tgtgtgctgg atggctctga aaccagacaa gacctctgcc agccacctaa gccctgcgta
540
cattcacatg cacacatgga agaattgtta tcggctgggc tgcagtggcc ccaccctcac
600
cttctctctg tgcattcttg tttcatccct gcttctggac ttgggggtacc ctcccaattg
660
ccacatecta tctggctctc tccccagcc ccatgtgggtg acctctttgt caagagcttg
720
ggaacggggc agcctgggga ggtaagactg catcactccc ctctctccc ttctgtgtg
780
gcccttgtga atcagcctcc ccactctcct tggctattct caagagtatg agagacagag
840
ctccaggcat gtcccatccc catgcacatg tggtaacaca cacctgtatc acacatgtgc
900
ttacatttcc actcacatgc acctctgagc ctcccttgct gtcttggacc tgtctgttgg
960
gtttagtccg tggacatttc agaggggat cccctccca tttactgtc ctcacaggcc
1020
cttgcttagg atggatgacc aacactgcac tcaatgagcc agcctctctt ttgggggaat
1080
caagcatttg ctctctctag actacagcag ggaaaggag gagaaatctg atgtctcaac
1140
tggcacatga agccattct tggaaactatg caaaggagc aggctgggag tttggacgct
1200
tagctcctac cctgtccta cctcaccggg gcactttcag gggccagggg cctctgaagt
1260
ctctaggcct atatgggaca atcaattctg actgagctcc ccattcccc tcgggtgagg
1320
atgactgtta tttttgtagc tgagaacgtg gaatcccacg ggtttttact gcccttcacc
1380
caacctctcc cacctccacc ccacaatgaa tgtatttatt gtgagaatgg ctacattct
1440
ttaggaatgc cccacttac aaccaggtgg gtggaacagg catgtgacag agtggggagc
1500
ctgggctcag ctctccccc tgccgttggg taataaacac cctttttccc cacaaaaaaa
1560
aaaaaaaaa
1569

<210> 2634

<211> 59

<212> PRT

<213> Homo sapiens

<400> 2634

Ile Gly Lys Lys Lys Arg Glu Thr Asp Arg Gln Met Asn Gly Asn Ser
 1 5 10 15
 Tyr Val Leu Leu Arg Gln Thr Xaa Asn Gly Val Pro Ala Gly Pro Cys
 20 25 30
 Ser Phe Ala Glu Glu Leu Ser Arg Ile Leu Glu Lys Arg Lys His Thr
 35 40 45
 Gln Leu Val Glu Gln Leu Asp Glu Ser Ser Val
 50 55

<210> 2635

<211> 1062

<212> DNA

<213> Homo sapiens

<400> 2635

nncggcacga ggcctttcct aggattgtgc caggggcaca caaggatttc aaagtacaga
 60
 aaaaactggg catacacatg ccctacaaag cagccaaaag acattcccca gtctctctca
 120
 ggaaatgttt caagatgaaa agcaaaagtc tgaagtccct tggaatcttg ggttgatttc
 180
 ttcattattc tcaaggctag gttgttttcc cccagcatac tttgttgggc aaaaataaaa
 240
 catttccaaa taaaagcaac tcctcagccc caattttcaa tgcaatatgc ttattaaaag
 300
 ttcaacattt ctcaaggtct agacttatag tgtgatcata ttacagtact cgggaagagc
 360
 attttctttg ttgttgaccc tgctagggaa acaggtcttg actcagccaa agtggcgctc
 420
 ttgtgggtga ttaatgacag gcctagatct cgccctagtg acatccatcc cccaccccc
 480
 acccccacta tactaaaatc agccgtgtct gaactgaagg aggggctgta gcctcgctc
 540
 aaaccaccca gtcccagagt taatagctgc aaccaatcga ttacggcaag cacacatcca
 600
 gattggggtg aaatgtgacc ctttcgccta aatttacgaa taatatcgtc ctctctgatc
 660
 atttccgctg gggctccagc gactacggaa acaattccaa tcattcggcc caaagaaaaa
 720
 gatgtccctg ttctacccaa tacgggcaag gcaaagcccc taccacctc caaacactat
 780
 ccccttgaca tcagcccatt tctattgtgt cttattaggt cctcgggcta cgaggaccta
 840
 gtgaaaaacg tggctgcctt actactttgc taagaacaag aaccacacag tccggcaccc
 900
 ccaccccagg ggccgcatcc cacaccccag gaccctgtt cccagttctc tccactaccc
 960
 cggcgggcgc ggggcccggg cccacctgtg gtgaggcggg aggagacgtc gccgaagggg
 1020
 gatggctcca ttcggagata cttctgcggc gagggcgccg ca
 1062

<210> 2636

<211> 63
 <212> PRT
 <213> Homo sapiens

<400> 2636
 Glu Gln Glu Pro His Ser Pro Ala Pro Pro Pro Gln Gly Pro His Pro
 1 5 10 15
 Thr Pro Gln Asp Pro Cys Ser Gln Phe Ser Pro Leu Pro Arg Arg Pro
 20 25 30
 Arg Gly Arg Val Pro Pro Val Val Arg Arg Glu Glu Thr Ser Pro Lys
 35 40 45
 Gly Asp Gly Ser Ile Arg Arg Tyr Phe Cys Gly Glu Ala Ala Ala
 50 55 60

<210> 2637
 <211> 1045
 <212> DNA
 <213> Homo sapiens

<400> 2637
 acgcgtgccca cggatatgagc ctccccaccc ctcttgcccc tgcccccaacg tgggctcttc
 60
 ctgaggagtgg ggcacatctt cactgtgtgt tgggggacac cctctcaagt ttccatggct
 120
 cagcagaagc agtgacacag tgggaatcta agagcatctc tcagattttg ctctagaatt
 180
 ggcttgcca acggacttcc ctctctgggg gaggtgggac agaagcactc cggagccaac
 240
 agctcagcca cggccatgct gaacgtctgt ttctgccttt gtacggcctc tttcttgagg
 300
 gtatccaaga tgcgcctcag tgtcttttta aagaagcaag aagagagcca gtttcaccct
 360
 ctggagtggg tggcaaggga agcctgcaac caggacgctc tccaggaggc gggcacattc
 420
 aggcacaccc tctggaagcg ggtccaaggt gctgtcacc cctctgctggc gagcatgata
 480
 tcattcatcg acagagacgg caacctagag ttactgacca ggccagatac tccgccttgg
 540
 gcaagagatc tttggatggt tattttcagt gacacgatgc ttctgaacat tctcttggg
 600
 atgaataatg aaagacataa aggtgagatg gcctacatcg tgggtgcagaa ccacatgaac
 660
 ctttccgaga acgcttccaa caacgtccct ttcagctgga aaatcaagga ctatctggag
 720
 gagctgtggg tccaggctca gtacatcaca gacgcagaag gactgccccaa gaagttcgtg
 780
 gacatctttc agcagactcc tctgggcagg tttcttgccc agctccatgg agagcccgag
 840
 caggaacttc ttcagtgtta cttgaaggat ttcattctct tgaccatgcg tgtgtcaacg
 900
 gaggaggaat taaagtttct gcagatggct ctgtggtcct gcactaggaa actgaaagcg
 960
 gcgtcagaag cgcccagga agaggtttcc ttaccgtggg tgcaccttgc ctaccagcgt
 1020

ttcagaagcg gtctgcagaa ctttt
1045

<210> 2638
<211> 263
<212> PRT
<213> Homo sapiens

<400> 2638
Met Leu Asn Val Cys Phe Cys Leu Cys Thr Ala Ser Phe Leu Arg Val
1 5 10 15
Ser Lys Met Arg Leu Ser Val Phe Leu Lys Lys Gln Glu Glu Ser Gln
20 25 30
Phe His Pro Leu Glu Trp Leu Ala Arg Glu Ala Cys Asn Gln Asp Ala
35 40 45
Leu Gln Glu Ala Gly Thr Phe Arg His Thr Leu Trp Lys Arg Val Gln
50 55 60
Gly Ala Val Thr Pro Leu Leu Ala Ser Met Ile Ser Phe Ile Asp Arg
65 70 75 80
Asp Gly Asn Leu Glu Leu Leu Thr Arg Pro Asp Thr Pro Pro Trp Ala
85 90 95
Arg Asp Leu Trp Met Phe Ile Phe Ser Asp Thr Met Leu Leu Asn Ile
100 105 110
Pro Leu Val Met Asn Asn Glu Arg His Lys Gly Glu Met Ala Tyr Ile
115 120 125
Val Val Gln Asn His Met Asn Leu Ser Glu Asn Ala Ser Asn Asn Val
130 135 140
Pro Phe Ser Trp Lys Ile Lys Asp Tyr Leu Glu Glu Leu Trp Val Gln
145 150 155 160
Ala Gln Tyr Ile Thr Asp Ala Glu Gly Leu Pro Lys Lys Phe Val Asp
165 170 175
Ile Phe Gln Gln Thr Pro Leu Gly Arg Phe Leu Ala Gln Leu His Gly
180 185 190
Glu Pro Gln Gln Glu Leu Leu Gln Cys Tyr Leu Lys Asp Phe Ile Leu
195 200 205
Leu Thr Met Arg Val Ser Thr Glu Glu Glu Leu Lys Phe Leu Gln Met
210 215 220
Ala Leu Trp Ser Cys Thr Arg Lys Leu Lys Ala Ala Ser Glu Ala Pro
225 230 235 240
Glu Glu Glu Val Ser Leu Pro Trp Val His Leu Ala Tyr Gln Arg Phe
245 250 255
Arg Ser Gly Leu Gln Asn Phe
260

<210> 2639
<211> 3777
<212> DNA
<213> Homo sapiens

<400> 2639
ttaggtcctt gggcagaaaa tgatcattta aagaaggaaa cctcaggtgt ggtcttagca
60
ctttctgcag agggctctcc tactgctgct tcagaacaat atacagatag gctggaactc
120

cagcctggag ctgctagtca gtttattgca ggcacgcccc caagtctaata ggaggcgag
180
gcagaaggac cccttacagc gattacaatt cctagacctt ctgtggcatc tacacagtca
240
acttcaggaa gctttcactg tggtcagcag ccagagaagg aagatcttca gcccatggag
300
cccactgtgg aactttactc tccaagggaa aacttctctg gcttgggtgt gacagagggg
360
gaacctccta gtggaggaag cagaacagat ttggggcttc agatagatca cattgggtcat
420
gacatgttac ccaacattag agaaagtaac aaatctcaag acctgggacc aaaagaactt
480
cctgatcata atagactggg tgtgagagaa tttgaaaatc tccctgggga aactgaagag
540
aaaagcatcc ttttagagtc agataatgaa gatgagaagt taagtagagg gcagcattgt
600
attgagatct cctctctccc aggagatttg gtaattgtgg aaaaggatca ctgagctact
660
actgaacctc ttgatgtgac aaaaacacag acttttagtg tggtgccaaa tcaagacaaa
720
aataatgaaa taatgaagct tctgacagtt ggaacttcag aaatttcttc cagagacatt
780
gaccacatg ttgaagggtc gataggccaa gtggcagaaa tgcaaaaaaa taagatatct
840
aaggatgatg acatcatgag tgaagacttg ccagggtcatc aaggagacct ctctactttt
900
ttgcaccaag agggcaagag agagaaaatc acccctagaa atggagaact atttcattgt
960
gtttcagaga atgaacatgg tgccccaacc cggaaggata tgggttaggtc atcctttgta
1020
actagacaca gccgaatccc tgttttagca caagagatag actcaacttt ggaatcatcc
1080
tctccagttt ctgcaaaaaga aaagctctc caaaagaaag cctatcagcc agacctagtc
1140
aagcttctgg tggaaaaaag acaattcaag tcttctcttg gcgacctctc aagtgcctct
1200
gataaattgc tagaggagaa actagctact gttctctgctc ccttttgtga ggaggaagtg
1260
ctcactccct tttcaagact gacagtagat tctcacctga gtaggtcagc tgaagatagc
1320
tttctgtcac ccatcatctc ccagtctaga aagagcaaaa ttccaaggcc agtttcatgg
1380
gtcaacacag atcaggtcaa tagctcaact tctgtctcagt tctttctctg gccaccacca
1440
ggaaagccac ccacgaggcc tggagtagaa gccaggctac gcagatataa agtcctaggg
1500
agtagtaact ccgactcaga ccttttctcc cgcttgcccc aaattcttca aaatggatct
1560
cagaaacccc ggagcactac tcagtgcag agtccaggat ctctcaciaa tccaaaaaca
1620
ccaccaaga gtccagttgt ccctcgcagg agtcccagtg cctctctctg aagctcatcc
1680
ttgcctcgca cgtctagttc ctccaccatct agggctggac ggccccacca tgaccagagg
1740

agttcgtccc cacatctggg gagaagcaag tcacctccca gccactcagg atcttcctcc
1800
tccaggaggt cctgccaaaca ggagcattgc aaaccagca agaatggcct gaaaggatcc
1860
ggcagcctcc accaccactc agccagcact aaaaccccc aaggggaagag taagccagcc
1920
agtaaactca gcagatagga gccaggctgc atctctttga aagggtgtgag atcttcctcc
1980
taaacctgat gcatgtgtgt ccctgtactt tctatgtaaa aaaatcagtg ttgatcttct
2040
cttgcaaaaag aaagtaacat gatcaattat ttataagaag acataatata tgataaggaa
2100
ttacctaaag caggcagcaa gtagattagg aatcaatgtc tttgtacaag aaggaaaaat
2160
agagcaaaaa tccaaggggg agaaactcat taaaatgagc tctcattttt taagctgcct
2220
ttgaaacaaa agagttgagg ataggagata gaatggaatt ttaggggggt tgcctaattt
2280
ttttaagcct caattcaaag attatatagc aaaagtgaag cttcttggtt gatattttca
2340
ttcaaaactt tcccaccctg aagagtcatt gatcagatat tagattatat aagaagtctg
2400
ttgccaggga gccagtattc atgtatat ttggttggtg tttatttcgt gtattgagaa
2460
tgaacacctt tactttgcct cattcctagt accctccctg gagttcagat ttttttttaa
2520
aattttgtat gtctcgtctg attcaatctc tctgctttta ttttatgggc ctagttgtac
2580
tatcaaatcc aattactttt ttttaggtcc ccttgatttt ttttttttag agcaagagtt
2640
cttaacatat tacattttta ttatgaaaaa taagaaagtt aggtaaagga aagaaaagtc
2700
taactagagc tattttgcag gctttagtgt ttagggagag aaagaaagtg tgggttaata
2760
gccttcaaga tagaagatgc ctttcatct ctgttaagtg tcctccttta gaaacttgag
2820
tagaaggaaa actgaccaga gtagactgct tccttaagtc ttctgggttc caactgtttg
2880
taatatcagc atccaagatg atacgaggga agcacaatgc tttggactgt gatttgagat
2940
ttagaaataa attagatata ttattgaggc ttagaatcct caaactttgt atttatata
3000
tttagccaat aaggaattaa tatctgggga aataaattta ggcaaatatt tcttttttaa
3060
tgttttatta cctgcttctc ctgtgtttta gttcaacatt tgggcttctt ggcttgattt
3120
tcatacaatc tcaatttacg aagctgtaaa gaggaagata tttgttctaa tctactctt
3180
ctaataggaa tcaggcaaag gaaagtctac cagactttta aaatgggctg tttttatact
3240
ctctaggtgt tttgtgttgt aaagacctta ttaaggctcag gtaaattggg ctgcttgctg
3300
ttgaaatttg ccttctagca aacatatgtg ctttctgttt gaccttggtt ttgctgcaa
3360

```
<210> 2640
<211> 645
<212> PRT
<213> Homo sapiens
```

1883

Glu	Met	Gln	Lys	Asn	Lys	Ile	Ser	Lys	Asp	Asp	Asp	Ile	Met	Ser	Glu	
		275					280					285				
Asp	Leu	Pro	Gly	His	Gln	Gly	Asp	Leu	Ser	Thr	Phe	Leu	His	Gln	Glu	
	290					295					300					
Gly	Lys	Arg	Glu	Lys	Ile	Thr	Pro	Arg	Asn	Gly	Glu	Leu	Phe	His	Cys	
305					310					315					320	
Val	Ser	Glu	Asn	Glu	His	Gly	Ala	Pro	Thr	Arg	Lys	Asp	Met	Val	Arg	
				325					330					335		
Ser	Ser	Phe	Val	Thr	Arg	His	Ser	Arg	Ile	Pro	Val	Leu	Ala	Gln	Glu	
			340					345					350			
Ile	Asp	Ser	Thr	Leu	Glu	Ser	Ser	Ser	Pro	Val	Ser	Ala	Lys	Glu	Lys	
		355					360					365				
Leu	Leu	Gln	Lys	Lys	Ala	Tyr	Gln	Pro	Asp	Leu	Val	Lys	Leu	Leu	Val	
	370					375					380					
Glu	Lys	Arg	Gln	Phe	Lys	Ser	Phe	Leu	Gly	Asp	Leu	Ser	Ser	Ala	Ser	
385					390					395					400	
Asp	Lys	Leu	Leu	Glu	Glu	Lys	Leu	Ala	Thr	Val	Pro	Ala	Pro	Phe	Cys	
				405					410					415		
Glu	Glu	Glu	Val	Leu	Thr	Pro	Phe	Ser	Arg	Leu	Thr	Val	Asp	Ser	His	
			420					425					430			
Leu	Ser	Arg	Ser	Ala	Glu	Asp	Ser	Phe	Leu	Ser	Pro	Ile	Ile	Ser	Gln	
		435					440					445				
Ser	Arg	Lys	Ser	Lys	Ile	Pro	Arg	Pro	Val	Ser	Trp	Val	Asn	Thr	Asp	
	450					455					460					
Gln	Val	Asn	Ser	Ser	Thr	Ser	Ser	Gln	Phe	Phe	Pro	Arg	Pro	Pro	Pro	
465					470					475					480	
Gly	Lys	Pro	Pro	Thr	Arg	Pro	Gly	Val	Glu	Ala	Arg	Leu	Arg	Arg	Tyr	
				485					490					495		
Lys	Val	Leu	Gly	Ser	Ser	Asn	Ser	Asp	Ser	Asp	Leu	Phe	Ser	Arg	Leu	
			500					505					510			
Ala	Gln	Ile	Leu	Gln	Asn	Gly	Ser	Gln	Lys	Pro	Arg	Ser	Thr	Thr	Gln	
		515				520						525				
Cys	Lys	Ser	Pro	Gly	Ser	Pro	His	Asn	Pro	Lys	Thr	Pro	Pro	Lys	Ser	
	530					535					540					
Pro	Val	Val	Pro	Arg	Arg	Ser	Pro	Ser	Ala	Ser	Pro	Arg	Ser	Ser	Ser	
545					550					555					560	
Leu	Pro	Arg	Thr	Ser	Ser	Ser	Ser	Pro	Ser	Arg	Ala	Gly	Arg	Pro	His	
				565					570					575		
His	Asp	Gln	Arg	Ser	Ser	Ser	Pro	His	Leu	Gly	Arg	Ser	Lys	Ser	Pro	
		580					585						590			
Pro	Ser	His	Ser	Gly	Ser	Ser	Ser	Ser	Arg	Arg	Ser	Cys	Gln	Gln	Glu	
		595				</										

```
<210> 2641
<211> 744
<212> DNA
<213> Homo sapiens
```

<400> 2641

gaattcaagg tccttttccc tcaggtcacc gtacctacag cttgtatgcc gcagcctgtc
 60
 catctcccca cttgcgtatg taagggcagt gcttctagga gccatgagca ttactcacct
 120
 gaaacctagg tgtaggaat gcaaccagct agatctgacc catgccctgt tttgtgtctg
 180
 cgttgacatg ctgcaggtga catcagttgc aaggggatga ccgagcgcac tcacagcacc
 240
 aaccttcaca acttcagcaa ttccgtgctc gagaccctca acgagcagcg caaccgtggc
 300
 cacttctgtg acgtaacggg gcgcattcac gggagcatgc tgcgcgcaca ccgctgcgtg
 360
 ctggcagccg gcagcccctt cttccaggac aaactgctgc ttggctacag cgacatcgag
 420
 atcccgtcgg tgggtgtcagt gcagtcagtg caaaagctca ttgacttcat gtacagcggc
 480
 gtgctacggg tctcgcagtc ggaagctctg cagatcctca cggccgccag catcctgcag
 540
 atcaaaacag tcatcgacga gtgcacgcgc atcgtgtcac agaactgtgg cgatgtgttc
 600
 ccggggatcc aggactcggg ccaggacacg ccgcggggca ctcccagtc aggcacgtca
 660
 ggccagagca gcgacacgga gtcgggctac ctgcagagcc acccacagca cagcgtggac
 720
 aggatctact cggcactcta cgcg
 744

<210> 2642

<211> 176

<212> PRT

<213> Homo sapiens

<400> 2642

Met Thr Glu Arg Ile His Ser Ile Asn Leu His Asn Phe Ser Asn Ser
 1 5 10 15
 Val Leu Glu Thr Leu Asn Glu Gln Arg Asn Arg Gly His Phe Cys Asp
 20 25 30
 Val Thr Val Arg Ile His Gly Ser Met Leu Arg Ala His Arg Cys Val
 35 40 45
 Leu Ala Ala Gly Ser Pro Phe Phe Gln Asp Lys Leu Leu Leu Gly Tyr
 50 55 60
 Ser Asp Ile Glu Ile Pro Ser Val Val Ser Val Gln Ser Val Gln Lys
 65 70 75 80
 Leu Ile Asp Phe Met Tyr Ser Gly Val Leu Arg Val Ser Gln Ser Glu
 85 90 95
 Ala Leu Gln Ile Leu Thr Ala Ala Ser Ile Leu Gln Ile Lys Thr Val
 100 105 110
 Ile Asp Glu Cys Thr Arg Ile Val Ser Gln Asn Val Gly Asp Val Phe
 115 120 125
 Pro Gly Ile Gln Asp Ser Gly Gln Asp Thr Pro Arg Gly Thr Pro Glu
 130 135 140
 Ser Gly Thr Ser Gly Gln Ser Ser Asp Thr Glu Ser Gly Tyr Leu Gln

145		150		155		160
Ser	His	Pro	Gln	His	Ser	Val
Asp	Arg	Ile	Tyr	Ser	Ala	Leu
Tyr	Ala					
165		170		175		

<210> 2643
 <211> 4590
 <212> DNA
 <213> Homo sapiens

<400> 2643
 gggaaataga gtcctggcgc tgccgcggag gatcctgggt gcagccgctc agagaagctt
 60
 ctcgcgcaca ggaagtcgct gcgaggaggc gcgtgtgcgg ggagttgaat ctcccgtctc
 120
 cttgaggtctg ggggttgcgtc tggtgacgcg gccgactaca atcccagagcc ctgccagccg
 180
 ggaacacgga ggggaaggag gaggagctta aaagaggcta ctgaacccca gttggccatg
 240
 gctgaggaat ttgtgacct caaggatgtc ggcatggact tcaccttggg agactgggag
 300
 cagctcgggc tggaacaggg ggacacgttc tgggacacag cgttggacaa ttgccaggac
 360
 ctcttctctgc tggaccccc aagacccaac ctgacctccc acccagatgg cagtgaagat
 420
 ctggagcctc tggcaggagg aagcccagaa gcaacaagcc ctgatgtgac tgagaccaag
 480
 aactctctc tgatggagga tttcttcgaa gaaggattct cccaggagat tatagagatg
 540
 ttatccaagg atggcttctg gaactccaat ttcggagaag cctgtataga ggacacctgg
 600
 ttagatagtt tgctaggcga tccagaaagt cttctgaggt ctgatattgc caccaacggg
 660
 gaaagtccca cggaatgcaa gagtcatgaa ttaaagagag gactcagtcc tgtgtccacc
 720
 gtttccacgg gagaagattc catggtgcat aatgtttctg aaaagaccct cacaccagct
 780
 aagtctaagg aatatagggg tgagtttttc tcctactccg accacagcca gcaggattct
 840
 gttcaggaag gggagaaacc atatcaatgt agtgaatgtg ggaaaagctt cagtgggagt
 900
 taccgtctta cccagcactg gatcactcat actagggaga aaccactgt ccatcaagag
 960
 tgtgagcaag gttttgaccg gaatgcttcc ctttctgtgt atccgaaaac tcacacgggc
 1020
 taaaaattct atgtgtgtaa tgaatatggg acaactttta gtcagagtac atacctgtgg
 1080
 catcagaaaa ctcacactgg agaaaaacca tgtaagagtc aagatagtga ccccccaccc
 1140
 agtcatgaca cacagcctgg tgagcatcag aaaactcaca cagatagtaa gtcctacaac
 1200
 tgtaacgaat ggggcaaggc ttttaccggt atcttccacc ttactcggca ccagaagatc
 1260
 cacactcgga aacgctatga gtgttccaag tgccaggcga ccttcaactt gagaaaacac
 1320

ctcatccaac atcagaaaac tcacgctgca aaaactacct ctgagtgtca ggagtgtggg
1380
aagattttta ggcacagttc gctgctcatt gaacaccagg ctcttcatgc tggagaggag
1440
ccttataagt gtaacgaacg tgggaaatcc ttcaggcata actctacct aaagatccat
1500
cagaggggtc acagtggaga gaagccttac aaatgcagtg agtgtgggaa ggccttcac
1560
cggcacactc accttaatga acatcggcga attcatacag gctacagacc ccacaaatgt
1620
caggaatgcg tcaggagttt cagccggccc tcacatctga tgcgacatca ggccattcac
1680
accgcagaaa agccctatag ctgtgctgaa tgcaaggaga ctttcagcga taacaatcg
1740
cttgtgcaac accagaaaat gcacactgtc aaaaccccat atgaatgtca ggagtgcgga
1800
gaacgcttca tttgcggctc aaccctgaag tgccacgaga gtgttcacgc cagagaaaaa
1860
caaggatttt ttgtgagtgg gaagatcttg gatcagaacc cagaacagaa agagaagtgc
1920
tttaagtgtg acaaattgtg gaaaaccttt agctgcagca aatacctaac tcagtacgag
1980
aggattcaca ccaggggagt gaagcccttt gaatgtgacc agtgtgggaa agcctttggc
2040
caaagtactc ggctcattca ccatcaaaga atccactcta gagtgaggct gtataaatgg
2100
ggtgagcaag ggaaagccat cagcagtgcc tcccttatca aacttcagtc cttccacaca
2160
aaggagcacc cttttaaatg taacgaatgc ggaaagacct tcagccacag tgcacacctc
2220
tcaaaacatc agttaattca cgctggagag aatcccttta aatgtagtaa gtgtgacaga
2280
gtcttcaccc agagaaacta ccttgttcag catgagcgaa ctcatgccag aaagaagccg
2340
ttggtgtgta acgaatgagg gaaaacgttc cgtcagagct catgcctttc taagcatcag
2400
agaattcact caggtgagaa gccctatgta tgtgattact gcgggaaggc cttcggcctg
2460
agtgtgagc ttgtccgcca ccagagaatt cacttgagg aaaagcctta tgtttgtcag
2520
gaatgcggga aagccttcac ccagagctca tgcctttcta ttcaccggag agttcacact
2580
ggggagaagc cctacagatg tggatgaatgt gggaaagcct ttgccagaa agcaaatcta
2640
acacagcacc agagaattca cacaggggag aagccttact cctgtaatgt gtgtggcaaa
2700
gcttttgtcc tcagtgccca tctcaaccag cacctgagag ttcacacca ggagacactt
2760
tatcagtgtc aacgttgcca gaaagccttt cggtgccact cgagcctcag ccgccatcag
2820
cgtgtacaca acaagcagca atactgcctg tagccattgg gtggcagcag agtcccagaa
2880
tatgagaccg ttactcggat gttgaaagt ggaaactatc ccattgcaag tttctctcca
2940

aataaatgca tctaaagatt gattagaaag tttgtgcgca tgtttttcat tataacaatg
3000
aaaacacaaa agtggagaag ctgtacaacg tcaggattca gaggtaggct ctggagccag
3060
tctaccttga gttaaattccc acctctgcc a tctactacct aagtgcctt gggaagggtca
3120
gaaaaatctc tcagggcctc ggtgtcctta tctgtaaaat gggcatcacc tacctcagag
3180
ggcttttctg aggattaaat aaataaatgt gaagcactta gaactgatgg ccagcacatg
3240
agggtcacc aagtgtaacg cacaataca catcagctat agcacaata tacttgtgtt
3300
acaagaaagg aattagtaat ctgtgtttac tgtagttaat gttcttaca tgtatcgctt
3360
ttaatttaag ttttcctttt ttacagtttt tctccagcac tttactcttc ttaagtgcct
3420
ggcctttttt tgtcccttta tctctcctgg tttttttctt aagccccaga aagccaaaaa
3480
gaacatgtaa actcttcacc tcaactagct acaaccttcc actcctaacc tcccaagctt
3540
ctcacttaaa gaggactccc tatcccacaa acacatgctc cctcttccta tgaccttcct
3600
ccatttaaca gtgttggtta tgcaataaga cacccaattt ttcattgggag ttgacaccaa
3660
aacacagctg gattccatca ggaaagctgc attgatcagg gtgttaaccg catatgaaac
3720
aacccatatg gaagacatac ttaggggtca aacctgtggt gtgtggaagt gacctggg
3780
atgtcatcat tcaccattta tccaggatgg ccgctcacca ggcaatttgc taggctcggg
3840
ggcgggtagt atccatacac tatgcactac tgctctgaag cttctggaat cagaaatgaa
3900
cccattttca tcgacgattg ctgttagttg acaagtgaca tcttgaaaat gccacattcc
3960
ctcatgtcac aggaagttct gggatcacca aggattgttg gagagtccag tgagatggaa
4020
ccacacaacc agttccctac cagtgtcttg tcagctctgg gtgtttgttc cctgccacta
4080
agtggctcag tcacaccttt gctgaaacac agtagtctta tgaaaagcac tggacacata
4140
ctttgaatac ctttcatatt ttaggtgctg aaaatggtga gggagtgagt gctctgcacc
4200
cttgggcttt tcaactcttg cacctggagt tctgctgggt aagtttggtta aacttagttg
4260
aaactgggaa cctgttggt aaccattggg gccttacact gtttttcaaa tgggtgcaac
4320
atttaacttc tcgcacatgg ttcccgctct ctggagctct gtcttgctcg ggagatgggc
4380
atgttgata ccaaaagagt gtacaaagt ttgcagggt gtgacacaat agggactcta
4440
tggaactg gcagccattg ggtgtggggg cagtctgtaa atcagtcacc tgtgttgctg
4500
caggccaagg tagaaacgcc ctccgtgtgt gcatatttgt tggttctctg attaaagttt
4560

tgagtctaaa aaaaaaaaaa aaaaaaaaaa
4590

<210> 2644

<211> 871

<212> PRT

<213> Homo sapiens

<400> 2644

Met	Ala	Glu	Glu	Phe	Val	Thr	Leu	Lys	Asp	Val	Gly	Met	Asp	Phe	Thr
1				5					10					15	
Leu	Gly	Asp	Trp	Glu	Gln	Leu	Gly	Leu	Glu	Gln	Gly	Asp	Thr	Phe	Trp
		20						25					30		
Asp	Thr	Ala	Leu	Asp	Asn	Cys	Gln	Asp	Leu	Phe	Leu	Leu	Asp	Pro	Pro
		35					40					45			
Arg	Pro	Asn	Leu	Thr	Ser	His	Pro	Asp	Gly	Ser	Glu	Asp	Leu	Glu	Pro
	50					55					60				
Leu	Ala	Gly	Gly	Ser	Pro	Glu	Ala	Thr	Ser	Pro	Asp	Val	Thr	Glu	Thr
65					70					75				80	
Lys	Asn	Ser	Pro	Leu	Met	Glu	Asp	Phe	Phe	Glu	Glu	Gly	Phe	Ser	Gln
				85					90					95	
Glu	Ile	Ile	Glu	Met	Leu	Ser	Lys	Asp	Gly	Phe	Trp	Asn	Ser	Asn	Phe
			100					105					110		
Gly	Glu	Ala	Cys	Ile	Glu	Asp	Thr	Trp	Leu	Asp	Ser	Leu	Leu	Gly	Asp
		115					120					125			
Pro	Glu	Ser	Leu	Leu	Arg	Ser	Asp	Ile	Ala	Thr	Asn	Gly	Glu	Ser	Pro
	130					135					140				
Thr	Glu	Cys	Lys	Ser	His	Glu	Leu	Lys	Arg	Gly	Leu	Ser	Pro	Val	Ser
145					150					155					160
Thr	Val	Ser	Thr	Gly	Glu	Asp	Ser	Met	Val	His	Asn	Val	Ser	Glu	Lys
				165					170					175	
Thr	Leu	Thr	Pro	Ala	Lys	Ser	Lys	Glu	Tyr	Arg	Gly	Glu	Phe	Phe	Ser
			180					185					190		
Tyr	Ser	Asp	His	Ser	Gln	Gln	Asp	Ser	Val	Gln	Glu	Gly	Glu	Lys	Pro
	195						200					205			
Tyr	Gln	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Gly	Ser	Tyr	Arg	Leu
	210					215					220				
Thr	Gln	His	Trp	Ile	Thr	His	Thr	Arg	Glu	Lys	Pro	Thr	Val	His	Gln
225					230					235					240
Glu	Cys	Glu	Gln	Gly	Phe	Asp	Arg	Asn	Ala	Ser	Leu	Ser	Val	Tyr	Pro
				245					250					255	
Lys	Thr	His	Thr	Gly	Tyr	Lys	Phe	Tyr	Val	Cys	Asn	Glu	Tyr	Gly	Thr
			260					265					270		
Thr	Phe	Ser	Gln	Ser	Thr	Tyr	Leu	Trp	His	Gln	Lys	Thr	His	Thr	Gly
		275					280					285			
Glu	Lys	Pro	Cys	Lys	Ser	Gln	Asp	Ser	Asp	His	Pro	Pro	Ser	His	Asp
	290					295					300				
Thr	Gln	Pro	Gly	Glu	His	Gln	Lys	Thr	His	Thr	Asp	Ser	Lys	Ser	Tyr
305					310					315					320
Asn	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Arg	Ile	Phe	His	Leu	Thr
				325					330					335	
Arg	His	Gln	Lys	Ile	His	Thr	Arg	Lys	Arg	Tyr	Glu	Cys	Ser	Lys	Cys
			340					345				350			
Gln	Ala	Thr	Phe	Asn	Leu	Arg	Lys	His	Leu	Ile	Gln	His	Gln	Lys	Thr

		355					360					365				
His	Ala	Ala	Lys	Thr	Thr	Ser	Glu	Cys	Gln	Glu	Cys	Gly	Lys	Ile	Phe	
	370					375					380					
Arg	His	Ser	Ser	Leu	Leu	Ile	Glu	His	Gln	Ala	Leu	His	Ala	Gly	Glu	
385					390					395					400	
Glu	Pro	Tyr	Lys	Cys	Asn	Glu	Arg	Gly	Lys	Ser	Phe	Arg	His	Asn	Ser	
				405					410					415		
Thr	Leu	Lys	Ile	His	Gln	Arg	Val	His	Ser	Gly	Glu	Lys	Pro	Tyr	Lys	
			420					425					430			
Cys	Ser	Glu	Cys	Gly	Lys	Ala	Phe	His	Arg	His	Thr	His	Leu	Asn	Glu	
		435					440					445				
His	Arg	Arg	Ile	His	Thr	Gly	Tyr	Arg	Pro	His	Lys	Cys	Gln	Glu	Cys	
	450					455					460					
Val	Arg	Ser	Phe	Ser	Arg	Pro	Ser	His	Leu	Met	Arg	His	Gln	Ala	Ile	
465					470					475					480	
His	Thr	Ala	Glu	Lys	Pro	Tyr	Ser	Cys	Ala	Glu	Cys	Lys	Glu	Thr	Phe	
				485					490					495		
Ser	Asp	Asn	Asn	Arg	Leu	Val	Gln	His	Gln	Lys	Met	His	Thr	Val	Lys	
			500					505					510			
Thr	Pro	Tyr	Glu	Cys	Gln	Glu	Cys	Gly	Glu	Arg	Phe	Ile	Cys	Gly	Ser	
		515					520					525				
Thr	Leu	Lys	Cys	His	Glu	Ser	Val	His	Ala	Arg	Glu	Lys	Gln	Gly	Phe	
	530					535					540					
Phe	Val	Ser	Gly	Lys	Ile	Leu	Asp	Gln	Asn	Pro	Glu	Gln	Lys	Glu	Lys	
545					550					555					560	
Cys	Phe	Lys	Cys	Asn	Lys	Cys	Glu	Lys	Thr	Phe	Ser	Cys	Ser	Lys	Tyr	
				565					570					575		
Leu	Thr	Gln	Tyr	Glu	Arg	Ile	His	Thr	Arg	Gly	Val	Lys	Pro	Phe	Glu	
			580					585					590			
Cys	Asp	Gln	Cys	Gly	Lys	Ala	Phe	Gly	Gln	Ser	Thr	Arg	Leu	Ile	His	
		595					600					605				
His	Gln	Arg	Ile	His	Ser	Arg	Val	Arg	Leu	Tyr	Lys	Trp	Gly	Glu	Gln	
	610					615					620					
Gly	Lys	Ala	Ile	Ser	Ser	Ala	Ser	Leu	Ile	Lys	Leu	Gln	Ser	Phe	His	
625					630					635					640	
Thr	Lys	Glu	His	Pro	Phe	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Thr	Phe	Ser	
				645					650					655		
His	Ser	Ala	His	Leu	Ser	Lys	His	Gln	Leu	Ile	His	Ala	Gly	Glu	Asn	
			660					665					670			
Pro	Phe	Lys	Cys	Ser	Lys	Cys	Asp	Arg	Val	Phe	Thr	Gln	Arg	Asn	Tyr	
		675					680					685				
Leu	Val	Gln	His	Glu	Arg	Thr	His	Ala	Arg	Lys	Lys	Pro	Leu	Val	Cys	
	690					695					700					
Asn	Glu	Cys	Gly	Lys	Thr	Phe	Arg	Gln	Ser	Ser	Cys	Leu	Ser	Lys	His	
705					710					715					720	
Gln	Arg	Ile														

785		790		795		800
Leu Thr Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Ser Cys						
	805		810		815	
Asn Val Cys Gly Lys Ala Phe Val Leu Ser Ala His Leu Asn Gln His						
	820		825		830	
Leu Arg Val His Thr Gln Glu Thr Leu Tyr Gln Cys Gln Arg Cys Gln						
	835		840		845	
Lys Ala Phe Arg Cys His Ser Ser Leu Ser Arg His Gln Arg Val His						
	850		855		860	
Asn Lys Gln Gln Tyr Cys Leu						
865		870				

<210> 2645

<211> 1018

<212> DNA

<213> Homo sapiens

<400> 2645

ctgaccacag agcgctgctc ccgagaaccc tgcaccacctc aatggagtaa attaccataa
 60
 agcctcttcc ttacccatgc tttgggggtgt taacagctga ggctattcgt cgggtgacctg
 120
 tgggactcga gctattcctg cagctcagca gacctcctgg ccgtggcaga cttctgcgtt
 180
 atgaccgggc tgctgggcta cgtggacccc ctggatccca gctttgtggc tgccgtcatc
 240
 accatcacct tcaatccgct ctactggaat gtggttgcac gatgggaaca caagaccgcg
 300
 aagctgagca gggccttcgg atccccctac ctggcctgct actctctaag catcaccatc
 360
 ctgctcctga acttctcgcg ctgcactgc ttcacgcagg ccatgctgag ccagcccagg
 420
 atggagagcc tggacacccc cgcggcctac agcctggggc tcgcgctcct gggactgggc
 480
 gtcgtgctcg tgctctccag cttctttgca ctgggggttcg ctggaacttt cctaggtgat
 540
 tacttcggga tcctcaagga ggcgagagt accgtgttcc ccttcaacat cctggacaac
 600
 cccatgtact ggggaagcac agccaactac ctgggctggg ccatcatgca cgccagcccc
 660
 acgggcctgc tectgacggt gctggtggcc ctcacctaca taatggctct cctatacgaa
 720
 gagcccttca ccgctgagat ctaccggcag aaagcctccg ggtcccacaa gaggagctga
 780
 ttgagctgca acagctttgc tgaaggcctg gccagcctcc tggcctgccc caagtggcag
 840
 gcctgcgca gggcgagaat ggtgcctgct gctcagggtc cgcccccggc gtgggctgcc
 900
 ccagtgcctt ggaacctgct gccttgggga ccctggacgt gccgacatat ggccattgag
 960
 ctccaaccca cacattccca ttcaccaata aaggcacctt gacccccaaa aaaaaaaaa
 1018

<210> 2646

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2646

```

Met Thr Arg Leu Leu Gly Tyr Val Asp Pro Leu Asp Pro Ser Phe Val
 1           5           10           15
Ala Ala Val Ile Thr Ile Thr Phe Asn Pro Leu Tyr Trp Asn Val Val
      20           25           30
Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
      35           40           45
Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr Ile Leu Leu Leu Asn
      50           55           60
Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
      65           70           75           80
Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
      85           90           95
Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
      100          105          110
Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
      115          120          125
Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
      130          135          140
Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
      145          150          155          160
Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
      165          170          175
Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
      180          185          190
Ser Gly Ser His Lys Arg Ser
      195

```

<210> 2647

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 2647

```

acgcgttctg atggtgactt cttgcatagt accaacggca ataaagaaaa gttattttcca
60
catgtgacac caaaaggaat taatgggtata gacttttaaag gggaagcgat aactttttaa
120
gcaactactg ctggaatcct tgcaacactt tctcattgta ttgaactaat ggtaaactgt
180
gaggacagct ggcagaagag actggataag gaaactgaga agaaaagaag aacagaggaa
240
gcatataaaa atgcaatgac agaacttaag aaaaaatccc acttttgagg accagattat
300
gaagaaggcc ctaacagtct gattaatgaa gaagagttct ttgatgctgt tgaagctgct
360
cttgacagac aagataaaat agaagaacag tcacagagtg aaaaggtgag attacattgg
420
cctacatcct tgccctctgg agatgccttt tcttctgtgg ggacacatag atttgtccaa
480

```

aaggttgaag agatggtgca gaaccacatg acttactcat tacaggatgt aggcggagat
 540
 gccaatgggc agttggttgt agaagaagga gaaatgaagg tatacagaag agaagtagaa
 600
 gaaaatggga ttgttctgga tcctttaaaa gctacccatg cagttaaagg cgtcacagga
 660
 catgaagtct gcaattatct ctggaatggt gacgttcgca atgactggga aacaactata
 720
 gaaaactttc atgtggtgga aacattagct gataatgcaa tcatcattta tcaaacacac
 780
 aagaggggtgt ggctgcttc tcagcgagac gtattatata tttctgtcat tcgaaagata
 840
 ccagccttga ctgaaaatga ccctgaaact tggatagttt gtaatttttc tgtggatcat
 900
 gacagtgtct ctctaaacaa ccgatgtgtc cgtgccaaaa taaatgttgc tatgatttgt
 960
 caaaccttgg taagcccacc agaggggaaac caggaaatta gcagggacaa cattctatgc
 1020
 aagattacat atgtagctaa tgtgaaccct ggaggatggg caccagcctc agtgtaagg
 1080
 gcagtggcaa agcgagagta tcctaaatct ctaaaacggt ttacttctta cgtccaagaa
 1140
 aaaactgcag gaaagcctat tttgttctag tattaacagt gactgaagca aggctgtgtg
 1200
 acattccatg ttggagaaaa aaagaaaaaa aaagctgaat gctctaagct ggaacgtagg
 1260
 atctatagcc ttgtctgtgg cccaagacct tggccttggtg tacaaaaatg acaaaatatt
 1320
 gcaatagcaa agctgaacat ctaacactag ctatctcttg ctagatct
 1368

<210> 2648

<211> 389

<212> PRT

<213> Homo sapiens

<400> 2648

Thr	Arg	Ser	Asp	Gly	Asp	Phe	Leu	His	Ser	Thr	Asn	Gly	Asn	Lys	Glu
5				10					15						
Lys	Leu	Phe	Pro	His	Val	Thr	Pro	Lys	Gly	Ile	Asn	Gly	Ile	Asp	Phe
		20						25				30			
Lys	Gly	Glu	Ala	Ile	Thr	Phe	Lys	Ala	Thr	Thr	Ala	Gly	Ile	Leu	Ala
		35					40					45			
Thr	Leu	Ser	His	Cys	Ile	Glu	Leu	Met	Val	Lys	Arg	Glu	Asp	Ser	Trp
	50					55					60				
Gln	Lys	Arg	Leu	Asp	Lys	Glu	Thr	Glu	Lys	Lys	Arg	Arg	Thr	Glu	Glu
65				70						75				80	
Ala	Tyr	Lys	Asn	Ala	Met	Thr	Glu	Leu	Lys	Lys	Lys	Ser	His	Phe	Gly
			85						90					95	
Gly	Pro	Asp	Tyr	Glu	Glu	Gly	Pro	Asn	Ser	Leu	Ile	Asn	Glu	Glu	Glu
		100						105					110		
Phe	Phe	Asp	Ala	Val	Glu	Ala	Ala	Leu	Asp	Arg	Gln	Asp	Lys	Ile	Glu
		115					120					125			
Glu	Gln	Ser	Gln	Ser	Glu	Lys	Val	Arg	Leu	His	Trp	Pro	Thr	Ser	Leu

130		135		140	
Pro	Ser	Gly	Asp	Ala	Phe
145		150		155	160
Lys	Val	Glu	Glu	Met	Val
		165		170	175
Val	Gly	Gly	Asp	Ala	Asn
		180		185	190
Lys	Val	Tyr	Arg	Arg	Glu
		195		200	205
Leu	Lys	Ala	Thr	His	Ala
		210		215	220
Asn	Tyr	Phe	Trp	Asn	Val
225		230		235	240
Glu	Asn	Phe	His	Val	Glu
		245		250	255
Tyr	Gln	Thr	His	Lys	Arg
		260		265	270
Tyr	Leu	Ser	Val	Ile	Arg
		275		280	285
Glu	Thr	Trp	Ile	Val	Cys
		290		295	300
Leu	Asn	Asn	Arg	Cys	Val
305		310		315	320
Gln	Thr	Leu	Val	Ser	Pro
		325		330	335
Asn	Ile	Leu	Cys	Lys	Ile
		340		345	350
Trp	Ala	Pro	Ala	Ser	Val
		355		360	365
Lys	Phe	Leu	Lys	Arg	Phe
		370		375	380
Lys	Pro	Ile	Leu	Phe	
385					

<210> 2649

<211> 1299

<212> DNA

<213> Homo sapiens

<400> 2649

```

nnggatccaa gcatggaatg ctgccgtcgg gcaactcctg gcacactgct cctctttctg
60
gctttcctgc tcttgagttc caggaccgca cgctccgagg aggaccggga cggcctatgg
120
gatgcctggg gcccatggag tgaatgctca cgcacctgcg ggggtggggc ctcctactct
180
ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata cagaacatgc
240
agtaatgtgg actgcccacc agaagcaggt gatttccgag ctcagcaatg ctcagctcat
300
aatgatgtca agcaccatgg ccagttttat gaatggcttc ctgtgtctaa tgaccctgac
360
aaccatgtt cactcaagtg ccaagccaaa ggaacaaccc tggttgttga actagcacct
420

```


aaggtcttag atggtacgcg ttgctataca gaatctttgg atatgtgcat cagtgggtta
480
tgccaaattg ttggtcgga tcaccagctg ggaagcaccg tcaaggaaga taactgtggg
540
gtctgcaacg gagatgggtc cacctgccgg ctggtccgag ggcagtataa atcccagctc
600
tccgcaacca aatcggatga tactgtgggt gcaattccct atggaagtag acatattcgc
660
cttgtcttaa aaggtcctga tcacttatat ctggaaacca aaacctcca ggggactaaa
720
ggtgaaaaca gtctcagctc cacaggaact ttccttggg acaattctag tgtggacttc
780
cagaaatttc cagacaaaga gatactgaga atggctggac cactcacagc agatttcatt
840
gtcaagattc gtaactcggg ctccgctgac agtacagtcc agttcatctt ctatcaacc
900
atcatccacc gatggaggga gacggatttc ttccttgct cagcaacctg tggaggaggt
960
tatcagctga catcggctga gtgctacgat ctgaggagca accgtgtggg tgctgacaa
1020
tactgtcact attaccaga gaacatcaaa cccaaaccca agcttcagga gtgcaacttg
1080
gatccttgct cagccagtga cggatacaag cagatcatgc cttatgacct ctaccatccc
1140
cttcctcggt gggaggccac cccatggacc gcgtgctcct cctcgtgtgg ggggggcatc
1200
cagagcccg gacgtttcct gtgtggagga ggacatccag gggcatgtca cttcagtga
1260
agagtggaaa tgcattgaca cccctaagat gcccatcgc
1299

<210> 2650

<211> 428

<212> PRT

<213> Homo sapiens

<400> 2650

Xaa	Asp	Pro	Ser	Met	Glu	Cys	Cys	Arg	Arg	Ala	Thr	Pro	Gly	Thr	Leu
1				5					10					15	
Leu	Leu	Phe	Leu	Ala	Phe	Leu	Leu	Leu	Ser	Ser	Arg	Thr	Ala	Arg	Ser
		20						25					30		
Glu	Glu	Asp	Arg	Asp	Gly	Leu	Trp	Asp	Ala	Trp	Gly	Pro	Trp	Ser	Glu
		35					40					45			
Cys	Ser	Arg	Thr	Cys	Gly	Gly	Gly	Ala	Ser	Tyr	Ser	Leu	Arg	Arg	Cys
	50					55					60				
Leu	Ser	Ser	Lys	Ser	Cys	Glu	Gly	Arg	Asn	Ile	Arg	Tyr	Arg	Thr	Cys
65					70					75					80
Ser	Asn	Val	Asp	Cys	Pro	Pro	Glu	Ala	Gly	Asp	Phe	Arg	Ala	Gln	Gln
			85						90					95	
Cys	Ser	Ala	His	Asn	Asp	Val	Lys	His	His	Gly	Gln	Phe	Tyr	Glu	Trp
		100						105					110		
Leu	Pro	Val	Ser	Asn	Asp	Pro	Asp	Asn	Pro	Cys	Ser	Leu	Lys	Cys	Gln
		115					120					125			
Ala	Lys	Gly	Thr	Thr	Leu	Val	Val	Glu	Leu	Ala	Pro	Lys	Val	Leu	Asp

130		135		140	
Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu					
145		150		155	160
Cys Gln Ile Val Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu					
	165		170		175
Asp Asn Cys Gly Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val					
	180		185		190
Arg Gly Gln Tyr Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr					
	195		200		205
Val Val Ala Ile Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys					
	210		215		220
Gly Pro Asp His Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys					
225		230		235	240
Gly Glu Asn Ser Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser					
	245		250		255
Ser Val Asp Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala					
	260		265		270
Gly Pro Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser					
	275		280		285
Ala Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg					
	290		295		300
Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly					
305		310		315	320
Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val					
	325		330		335
Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys					
	340		345		350
Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro Ala Ser Asp Gly					
	355		360		365
Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His Pro Leu Pro Arg Trp					
	370		375		380
Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile					
385		390		395	400
Gln Ser Pro Gly Ser Phe Leu Cys Gly Gly Gly His Pro Gly Ala Cys					
	405		410		415
His Phe Ser Gly Arg Val Glu Met His Val His Pro					
	420		425		

<210> 2651

<211> 628

<212> DNA

<213> Homo sapiens

<400> 2651

tacacagtcc tgccggctgg cttggtgggg tgccgaggct caggcagcat gacgacggag
60
acctttgtga agggatatcaa gcctgggctc aagaatctga accttatctt cattgtgctg
120
gagacaggcc gagtgaccaa gacaaaggac gggcatgagg ttcggacctg caaagtggcg
180
gacaaaacag gcagcatcaa tatctctgtc tgggacgatg ttggcaatct gatccagcct
240
ggggacatta tccggctcac caaagggtac gcttcagttt tcaaagggtg tctgacacta
300

tatactggcc gtgggggtga tctgcagaag attggagaat tctgcatgga ttattctgag
 360
 gttcctaact tcagttagcc aaaccagag tacagcacc agcaggcacc caacaaggcg
 420
 gtgcagaacg acagcaaccc ttcagcttcc cagcctacca ctggaccctc tgctgcctct
 480
 ccagcctctg agaaccagaa tgggaatgga atgagtgcc caccagggtt ccgggtggtg
 540
 gccacatcc ccctcatact ccctcccacc caccagcac ccgaatcact cgaagccagc
 600
 ccaaccacac acctgcaggc cgcctgg
 628

<210> 2652

<211> 209

<212> PRT

<213> Homo sapiens

<400> 2652

Tyr	Thr	Val	Leu	Pro	Ala	Gly	Leu	Val	Gly	Cys	Arg	Gly	Ser	Gly	Ser
1				5					10					15	
Met	Thr	Thr	Glu	Thr	Phe	Val	Lys	Gly	Ile	Lys	Pro	Gly	Leu	Lys	Asn
			20					25					30		
Leu	Asn	Leu	Ile	Phe	Ile	Val	Leu	Glu	Thr	Gly	Arg	Val	Thr	Lys	Thr
		35					40					45			
Lys	Asp	Gly	His	Glu	Val	Arg	Thr	Cys	Lys	Val	Ala	Asp	Lys	Thr	Gly
	50					55				60					
Ser	Ile	Asn	Ile	Ser	Val	Trp	Asp	Asp	Val	Gly	Asn	Leu	Ile	Gln	Pro
65					70				75					80	
Gly	Asp	Ile	Ile	Arg	Leu	Thr	Lys	Gly	Tyr	Ala	Ser	Val	Phe	Lys	Gly
				85				90						95	
Cys	Leu	Thr	Leu	Tyr	Thr	Gly	Arg	Gly	Gly	Asp	Leu	Gln	Lys	Ile	Gly
			100					105					110		
Glu	Phe	Cys	Met	Asp	Tyr	Ser	Glu	Val	Pro	Asn	Phe	Ser	Glu	Pro	Asn
		115					120					125			
Pro	Glu	Tyr	Ser	Thr	Gln	Gln	Ala	Pro	Asn	Lys	Ala	Val	Gln	Asn	Asp
	130					135					140				
Ser	Asn	Pro	Ser	Ala	Ser	Gln	Pro	Thr	Thr	Gly	Pro	Ser	Ala	Ala	Ser
145					150					155					160
Pro	Ala	Ser	Glu	Asn	Gln	Asn	Gly	Asn	Gly	Met	Ser	Ala	Pro	Pro	Gly
			165					170						175	
Phe	Arg	Val	Val	Ala	His	Ile	Pro	Leu	Ile	Leu	Pro	Pro	Thr	His	Pro
		180						185					190		
Ala	Pro	Glu	Ser	Leu	Glu	Ala	Ser	Pro	Thr	Thr	His	Leu	Gln	Ala	Arg
		195					200						205		

Leu

<210> 2653

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 2653

natattgggg ccggcggcgg gtgggagagt tctacgaggg aggggaagcg gttggacgtg
60
ttcgcttggg ttcttgctgc ggcagccacc tcgcaatctc tctgcatcga tcgccgctcg
120
caagctactg accgtactcg ggcgtattag gagccgcgtt ccagcctcac accccacggt
180
gctgttttcg acttcagaaa ggatctagcc tcagcacaga agcgcctcag gcgcggcgca
240
aagctcgagc ggacggcggg ggcggcggga gcctctctcg ggggagccgc gcctgaggag
300
gcggaagaac cccctgacg cgactggcgt gtgcttctgc ccgccaccgc ccctcccgt
360
ctcaccggg cegtccctgg ccactgcccc tgccgcggag gcagcggcgg cagcggctct
420
cctttccaca gccggcgctc cgcgaccgc ttggctctcg agcccgctcg gtaggctctc
480
ctcgagttcc cgtctttcac cccttccctc accctcttct ttcgtcacc gtccccgacc
540
ccaccgagc ccggcgctc agctgcccc ggccatggcg tgcggagcca ctctgaaaag
600
gactctggat ttcgaccgc tgttgagccc ggcgtcccc aagcgcaggc gatgtgcgcc
660
attgtcggcg ccacctcgg ccgtgcctc cccgttgctg gcggccgcgg ccaccgccgc
720
ctccttctcc gctgcggccg cctcgcgcga gaagtatctc cgaatggagc catccccctt
780
cggcgacgcc tctcccgcc tcaccacaga acaattctg tacaacataa aacaagagta
840
taaacgaatg cagaagagaa gacatttaga aacgagtttc caacagacag atccgtgttg
900
tactttctgat gcacagccac atgcatttct cctcagtggg ccagcttcac cagggacttc
960
atctgcagca tctcaccat taaaaaaga acagccctta tttactctac ggcaggttgg
1020
gatgatctgt gaacgtttgt tgaaagaacg tgaagagaaa gttcgagaag aatatgaaga
1080
aatattgaac aaaaaacttg cagaacaata tgatgcgttt gtgaagttaa cgcgatgatca
1140
aataatgcga cgatatggag aacagcctgc tagctatggt tcatgaatca cgtatcctgc
1200
atgtgtgggc tgccttgctt cttgttgagt tgttgcaaga ggtcccaatt atgacatgca
1260
gcaatgcaa tacccttct gtgaatacag gttatttcaa gctttcgtca gtggcaacca
1320
ctcttaggca gcagcaactg gttttggaaa ttccctgat gtcagtacca cctggatgtg
1380
gacctttgct acctgtatta ataccagtgg cctcattttg ctgtatcatt acaatttggc
1440
ttcttatatt aatgtttgaa aaggattaaa gctgggtattc tagaacatgc cttcactgg
1500
ttgtgtaaataaaaactgtag aatgacactt cagatgaagt tagtgtgatt ttaattgtgc
1560
actacaaccg agctgtaacc agttactaat tttagaatgt aatcccagga caatattaag
1620

caaatagcct gcagtgcctc ctgtgaaata gtgaaggagg agggcatttc tgtattccag
 1680
 gacttccttg gggttcagaa tgggtttgta tgattttttt tttttttttg tagttttatt
 1740
 tattctatca gtctttttta caaatgttta ttgctgcatt tttttttttc cagtgtatca
 1800
 ttgttttact gccctttag tagtgggaatt tagttggaag aataaaacat ttacttctat
 1860
 tttgcttggt tcttaatgta cagatggggg tagtatttga ataaagtgg tgttttaaaa
 1920
 cgtaagcatt ttccaggaat cagtgaagtt aattttctaa gatttgagtg ctgtttcaaa
 1980
 acactgagtt ctgattctaa atgccttctt ctgctgggcg cggtggtca tgcctgtaat
 2040
 cccagcatt tgggaggccg aggcgggagg atcacgaggt caggagatcg agactatcct
 2100
 ggc
 2103

<210> 2654

<211> 70

<212> PRT

<213> Homo sapiens

<400> 2654

Tyr	Leu	Asn	Lys	Val	Gly	Val	Leu	Lys	Arg	Lys	His	Phe	Pro	Gly	Ile
1				5				10						15	
Ser	Glu	Val	Asn	Phe	Leu	Arg	Phe	Glu	Cys	Cys	Phe	Lys	Thr	Leu	Ser
			20					25					30		
Ser	Asp	Ser	Lys	Cys	Leu	Leu	Leu	Gly	Ala	Val	Ala	His	Ala	Cys	
			35				40					45			
Asn	Pro	Ser	Thr	Leu	Gly	Gly	Arg	Gly	Gly	Arg	Ile	Thr	Arg	Ser	Gly
	50					55					60				
Asp	Arg	Asp	Tyr	Pro	Gly										
65					70										

<210> 2655

<211> 1752

<212> DNA

<213> Homo sapiens

<400> 2655

tttttttttc cagatccttg agttcattct cgatttttgt gattaattcc ctgagttcat
 60
 caagattagt gcaaataagc tgaaactctg gtacagtagg tgactttatg acagttttcc
 120
 tcttctttgt gattgctttt ttagagacgg atttttttcc agatttgatg ttcttggtgt
 180
 ttgctttttt ttgatgatc aataacttat tctggatctc aggtttgtaa gacttgaatg
 240
 caagagaatg aagaccttca cgctttctct gtaagttttc attcaaaaca tctttcaatt
 300
 tctttttttt cttttttctt ttttttgccc tcatttttagt tagtttgagt ttcttggtggc
 360

tctgtagtga ctgctctaata agaatatccc ttacaacttt gtggcagtta atttctggat
420
gatcactgtg acttccattt acatgtattt ggcaagattt tagagtattt tcttttaatg
480
gactgggttc aatctttatt ctggaagctt caccgtattt ttcttgattt tctataaacc
540
ttatttcacc tggactgaga ggctctccaa agccagtaac ttccccctgga ctccttggtt
600
tctctaaatt ttctttacaa caatcagttt ttttaatttc acaaggcctg cgaattctaa
660
tttcatagtt ggattttact cccatttcaa cagagatgtc atgattatcc aagatcattt
720
tagcaggaca gcaagctgga tcaaaattat ttctctgctc tttcttgaag gaagagggca
780
ggctatctct gctacatcta tgttctccat tacttggtact aacatagtca cacttcaatt
840
tctccaattt aatccgaggt actctttgta ttttaatggg tgggaattgga aattctgggg
900
cctgaaaggg tctctgttta taaatccgta catctgcacc acagaactgt ggaaaatgta
960
cataagcagt ctccaaataa tcataacgaa gaataactgc cctgcattca tggataggct
1020
gtccaagtac agcatcttga acttccttat gtgtatcata cacaaagtca caaagacct
1080
taagtagcca cacttttttg taaaaaggta gtctgtgaaa aggtttttct tccaatggat
1140
taacttctcc aagaacttta aaaaactgag gacacaaccc cagtttttca gcacagttat
1200
caggattttc agtttgcctt acagcagtgt accactgttg tactttctgc ctcagcgctg
1260
cttcccaggt cctataaggc aaagtaggtc ttcgatgtaa ggtaggtctg cgatggggag
1320
gacttaatag agaagtcatt attttcgata gaaaagcatt aactgagggc atcagaagac
1380
aacgttccaa ttcgtaaaag actatttctg gcaaatttag aatttgctga gctaaacaaa
1440
ggaaatgccc aatagctgga atttcccaca tggctctccat acaagttgga gctgcttgag
1500
ctagaagttt tctttcccat tcttctattt ccttttgact agcttcttct gcttcttttc
1560
tttctgctc ccgaagccta aagaaattta acaaattata ctattattat tcagagggta
1620
ccataaaatg ataaatttta agtatattta tctttagtca aaaaggcaat caactgtcct
1680
agttttattt atttatttat ttgagacaga gtctcgctct gtcccccagg ctgtagtgca
1740
gtgatgcaat ct
1752

<210> 2656

<211> 493

<212> PRT

<213> Homo sapiens

<400> 2656

```

Met Glu Thr Met Trp Glu Ile Pro Ala Ile Gly His Phe Leu Cys Leu
 1          5          10          15
Ala Gln Gln Ile Leu Asn Leu Pro Glu Ile Val Phe Tyr Glu Leu Glu
          20          25          30
Arg Cys Leu Leu Met Pro Gln Cys Asn Ala Phe Leu Ser Lys Ile Met
          35          40          45
Thr Ser Leu Leu Ser Pro Pro His Arg Arg Pro Thr Leu His Arg Arg
          50          55          60
Pro Thr Leu Pro Tyr Arg Thr Trp Glu Ala Ala Leu Arg Gln Lys Val
65          70          75          80
Gln Gln Trp Tyr Thr Ala Val Gly Gln Thr Glu Asn Pro Asp Asn Cys
          85          90          95
Ala Glu Lys Leu Gly Leu Cys Pro Gln Phe Phe Lys Val Leu Gly Glu
          100          105          110
Val Asn Pro Leu Glu Glu Lys Pro Phe His Glu Leu Pro Phe Tyr Gln
          115          120          125
Lys Val Trp Leu Leu Lys Gly Leu Cys Asp Phe Val Tyr Asp Thr His
          130          135          140
Lys Glu Val Gln Asp Ala Val Leu Gly Gln Pro Ile His Glu Cys Arg
          145          150          155          160
Ala Val Ile Leu Arg Tyr Asp Tyr Leu Glu Thr Ala Tyr Val His Phe
          165          170          175
Pro Gln Phe Cys Gly Ala Asp Val Arg Ile Tyr Lys Gln Arg Pro Phe
          180          185          190
Gln Ala Pro Glu Phe Pro Ile Pro Pro Ile Lys Ile Gln Arg Val Pro
          195          200          205
Arg Ile Lys Leu Glu Lys Leu Lys Cys Asp Tyr Val Ser Thr Ser Asn
          210          215          220
Gly Glu His Arg Cys Ser Arg Asp Ser Leu Pro Ser Ser Phe Lys Lys
          225          230          235          240
Glu Gln Glu Asn Asn Phe Asp Pro Ala Cys Cys Pro Ala Lys Met Ile
          245          250          255
Leu Asp Asn His Asp Ile Ser Val Glu Met Gly Val Lys Ser Asn Tyr
          260          265          270
Glu Ile Arg Ile Arg Arg Pro Cys Glu Ile Lys Lys Thr Asp Cys Cys
          275          280          285
Lys Glu Asn Leu Glu Lys Pro Arg Ser Pro Gly Glu Val Thr Gly Phe
          290          295          300
Gly Glu Pro Leu Ser Pro Gly Glu Ile Arg Phe Ile Glu Asn Gln Glu
          305          310          315          320
Lys Tyr Gly Glu Ala Ser Arg Ile Lys Ile Glu Pro Ser Pro Leu Lys
          325          330          335
Glu Asn Thr Leu Lys Ser Cys Gln Ile His Val Asn Gly Ser His Ser
          340          345          350
Asp His Pro Glu Ile Asn Cys His Lys Val Val Arg Asp Ile Leu Leu
          355          360          365
Glu Gln Ser Leu Gln Ser His Lys Lys Leu Lys Leu Thr Lys Met Arg
          370          375          380
Ala Lys Lys Lys Lys Lys Lys Lys Lys Leu Lys Asp Val Leu Asn
          385          390          395          400
Glu Asn Leu Gln Arg Lys Arg Glu Gly Leu His Ser Leu Ala Phe Lys
          405          410          415
Ser Tyr Lys Pro Glu Ile Gln Asn Lys Leu Leu Ile Ile Lys Lys Lys

```

	420		425		430										
Ala	Lys	His	Lys	Lys	His	Lys	Ser	Gly	Lys	Lys	Ser	Val	Ser	Lys	Lys
	435				440						445				
Ala	Ile	Thr	Lys	Lys	Arg	Lys	Thr	Val	Ile	Lys	Ser	Pro	Thr	Val	Pro
	450				455						460				
Glu	Phe	Gln	Leu	Ile	Cys	Thr	Asn	Leu	Asp	Glu	Leu	Arg	Glu	Leu	Ile
465					470					475				480	
Thr	Lys	Ile	Glu	Asn	Glu	Leu	Lys	Asp	Leu	Glu	Lys	Lys			
			485						490						

<210> 2657

<211> 972

<212> DNA

<213> Homo sapiens

<400> 2657

```

nnctcgagct ctecccgccc accgtctggt ttatattctg ttataaatgg ggaggcctcc
60
aggggggtcag agaccacagc ccagtagcct gggacaagcc gccagtcctc tctggtctct
120
gtcctgttgt ctaagggccca aggggcagta gccctcctc caggggcctc gagcacagag
180
gcgtcagatc agagttgccca tcttcaactt gatatgcccc ccacatocca gcagctctgt
240
gggcccaggc tactggcatc cacatgactc ccagggcctg agtccacact gcctgaggac
300
aggagcctca aaactgaaat gcacgtgctt cggaccagcc atccgtgctt gacaatgtcc
360
tatggaaaca cccacacgtg tgcagatcgc tgcaatgaaa gggtcctgca tgggggtggg
420
taattccagc tgggaccgcc taggagcgcc atgcagctgt gggacaaggc ttgctgtcca
480
cacagacatg aagggattcc ccgtggaatg aggttagaaa aggaagggca agagtggacg
540
tataagatgc cccatgctgt gtgaaaactg ccatgagaga gagacggagg aagggggaga
600
aagtgggaga cagagaccaa catctgcact gcctgtgcct gccacactct cccctcgagg
660
ccagaggggtg gcctctgggg aggggctggc gagaggggat gccaggcctg ggctgcagca
720
gacttgggtg gtcattggagg atccatgccca tcaacggcag gctgggggtg cctccccggg
780
ccagcaccaa gcatgcatgg ttggtgatgt ggaacttacg cagagcgtgg cggctgggca
840
ggcgggtgtg caggggctgg gcatggatat acagggctcg gtagaactcc tggcagtcct
900
gtccccgct ccgtgcaggc tggctcagga ggtcacagag ccgcacacgc aaggatgcct
960
tggggttccg ga
972

```

<210> 2658

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2658

Glu	Arg	Asp	Gly	Gly	Arg	Gly	Arg	Lys	Trp	Glu	Thr	Glu	Thr	Asn	Ile
1				5				10						15	
Cys	Thr	Ala	Cys	Ala	Cys	His	Thr	Leu	Pro	Ser	Gly	Pro	Glu	Gly	Gly
		20						25				30			
Leu	Trp	Gly	Gly	Ala	Gly	Glu	Arg	Gly	Cys	Gln	Ala	Trp	Ala	Ala	Ala
		35					40					45			
Asp	Leu	Gly	Gly	His	Gly	Gly	Ser	Met	Pro	Ser	Thr	Ala	Gly	Trp	Gly
	50					55					60				
Ala	Leu	Pro	Gly	Pro	Ala	Pro	Ser	Met	His	Gly	Trp				
65					70					75					

<210> 2659

<211> 691

<212> DNA

<213> Homo sapiens

<400> 2659

```

actagtgaaa gaaacggaag caagatttcc agatgtagca aatgggttta ttacggaaat
60
aattcatttt aagaattatt atgatctgaa tgtgaggctg aagaggaaca gaaaagaaag
120
aatggagaga acaccttcaa acgcattgga cccccgctgg agaagcctgt ggagaagggtg
180
cagaggggtgg aggccctccc gagggccggtt ccgcagaacc tgccacagcc acagatgcca
240
ccctatgcct tcgcgcaccc acccttcccc ctgcctcccg tgcggcctgt gttcaacaac
300
ttcccactca acatggggcc tatcccagcc ccgtacgtgc cccctctgcc caacgtgcgg
360
gtcaactatg acttcggtcc catccacatg cccctggagc acaacctgcc catgcacttt
420
ggccccccagc cgcggcacg cttctgatgg ccccgaatcc ccattgagca gcacaaagcc
480
cgtttggggt aggagtgtgg atggagaacc ctcccccaag gctggtgtct gtaccattgc
540
atcctaagtc agcttgaagg gtaggctggt tttcttccca cccctttcct agaagggtta
600
ctgctcctgg aagagtggac ggatccataa taaagacgtc ccaaattggtg aaaaaaaaaa
660
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
691

```

<210> 2660

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2660

Ser	Glu	Cys	Glu	Ala	Glu	Glu	Glu	Gln	Lys	Arg	Lys	Asn	Gly	Glu	Asn
1				5				10					15		
Thr	Phe	Lys	Arg	Ile	Gly	Pro	Pro	Leu	Glu	Lys	Pro	Val	Glu	Lys	Val

	20		25		30										
Gln	Arg	Val	Glu	Ala	Leu	Pro	Arg	Pro	Val	Pro	Gln	Asn	Leu	Pro	Gln
	35						40				45				
Pro	Gln	Met	Pro	Pro	Tyr	Ala	Phe	Ala	His	Pro	Pro	Phe	Pro	Leu	Pro
	50					55					60				
Pro	Val	Arg	Pro	Val	Phe	Asn	Asn	Phe	Pro	Leu	Asn	Met	Gly	Pro	Ile
65					70					75				80	
Pro	Ala	Pro	Tyr	Val	Pro	Pro	Leu	Pro	Asn	Val	Arg	Val	Asn	Tyr	Asp
			85						90				95		
Phe	Gly	Pro	Ile	His	Met	Pro	Leu	Glu	His	Asn	Leu	Pro	Met	His	Phe
		100						105					110		
Gly	Pro	Gln	Pro	Arg	His	Arg	Phe								
	115						120								

<210> 2661

<211> 1395

<212> DNA

<213> Homo sapiens

<400> 2661

ctagttgatc agcaagtttg gaaaatagaa gatgtcttca cattacaagt tgtgatgaag
 60
 tgtattggaa aagatgcacc gattgctctt aagaggaaac tggagatgaa agccttgagg
 120
 gaattagaca gattttctgt tttgaatagc caacacatgt ttgaagtact agctgccatg
 180
 aatcacgat ctcttatact cctggatgaa tgcagtaagg tggctcctaga taatatccat
 240
 ggggtgcctt taagaataat gatcaacata ttgcagtctt gcaaagacct ccagtaccat
 300
 aatttggatc tcttcaaggg acttgcagat tatgtggctg caactttcga catctggaag
 360
 ttcagaaaag ttctttttat cctcatttta tttgaaaacc ttggctttcg acctgttggg
 420
 ttaatggacc tgtttatgaa gagaatagta gaggatcctg aatccctaaa catgaaaaac
 480
 attctatcta ttcttcatac ttactcttct ctcaatcatg tctacaaatg ccagaacaaa
 540
 gaacagttcg tggaagttat ggctagtgtc ctgactgggt atcttcacac tatttcttct
 600
 gaaaacttat tggatgcagt atattcattt tgettgatga attactttcc cctggctcct
 660
 tttaatcagc ttctgcaaaa agacatcatc agtgagctgc tgacatcaga tgacatgaag
 720
 aatgcttaca agctgcatac tttggatact tgtctaaaac ttgatgatac tgtctatctg
 780
 agggacatag ccttgtcact cccacagctg ccgcggggagc tgccatcgtc acatacaaat
 840
 gcaaagggtg cagaggtgct gagcagcctt ctgggagggt aaggacactt ctcaaaggat
 900
 gtgcacttgc cacacaatta tcatattgat tttgaaatca gaatggacac taacaggaat
 960
 caagtgtac cactttctga tgtggataga acttctgcta cagatattca aagagtagct
 1020

gtgctatgtg tttccagatc tgcttattgt ttgggttcaa gccaccccag aggattcctt
 1080
 gctatgaaaa tgcggcattt gaatgcaatg ggttttcatg tgatcttggt caataactgg
 1140
 gagatggaca aactagagat ggaagatgca gtcacatttt tgaagactaa aatctattca
 1200
 gtagaagctc ttctgttgc tgctgtaa atgtgcaaagca cacaataaag tgaaaatcaa
 1260
 ccttttcata ttaggagaca tgcatttgta aaaattaata aagatgacaa gtcagttgtc
 1320
 aatggaattg agctatctgc taagacaaaa aatgttacct cagttcacta ttaaaattaa
 1380
 ttttaggagt ggaaa
 1395

<210> 2662

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2662

Leu	Val	Asp	Gln	Gln	Val	Trp	Lys	Ile	Glu	Asp	Val	Phe	Thr	Leu	Gln
1				5					10					15	
Val	Val	Met	Lys	Cys	Ile	Gly	Lys	Asp	Ala	Pro	Ile	Ala	Leu	Lys	Arg
			20					25					30		
Lys	Leu	Glu	Met	Lys	Ala	Leu	Arg	Glu	Leu	Asp	Arg	Phe	Ser	Val	Leu
		35					40					45			
Asn	Ser	Gln	His	Met	Phe	Glu	Val	Leu	Ala	Ala	Met	Asn	His	Arg	Ser
	50					55					60				
Leu	Ile	Leu	Leu	Asp	Glu	Cys	Ser	Lys	Val	Val	Leu	Asp	Asn	Ile	His
65				70						75				80	
Gly	Cys	Pro	Leu	Arg	Ile	Met	Ile	Asn	Ile	Leu	Gln	Ser	Cys	Lys	Asp
			85					90						95	
Leu	Gln	Tyr	His	Asn	Leu	Asp	Leu	Phe	Lys	Gly	Leu	Ala	Asp	Tyr	Val
			100					105					110		
Ala	Ala	Thr	Phe	Asp	Ile	Trp	Lys	Phe	Arg	Lys	Val	Leu	Phe	Ile	Leu
		115					120					125			
Ile	Leu	Phe	Glu	Asn	Leu	Gly	Phe	Arg	Pro	Val	Gly	Leu	Met	Asp	Leu
	130					135					140				
Phe	Met	Lys	Arg	Ile	Val	Glu	Asp	Pro	Glu	Ser	Leu	Asn	Met	Lys	Asn
145				150						155				160	
Ile	Leu	Ser	Ile	Leu	His	Thr	Tyr	Ser	Ser	Leu	Asn	His	Val	Tyr	Lys
			165					170						175	
Cys	Gln	Asn	Lys	Glu	Gln	Phe	Val	Glu	Val	Met	Ala	Ser	Ala	Leu	Thr
		180						185					190		
Gly	Tyr	Leu	His	Thr	Ile	Ser	Ser	Glu	Asn	Leu	Leu	Asp	Ala	Val	Tyr
	195					200						205			
Ser	Phe	Cys	Leu	Met	Asn	Tyr	Phe	Pro	Leu	Ala	Pro	Phe	Asn	Gln	Leu
	210				215						220				
Leu	Gln	Lys	Asp	Ile	Ile	Ser	Glu	Leu	Leu	Thr	Ser	Asp	Asp	Met	Lys
225				230						235				240	
Asn	Ala	Tyr	Lys	Leu	His	Thr	Leu	Asp	Thr	Cys	Leu	Lys	Leu	Asp	Asp
			245					250						255	
Thr	Val	Tyr	Leu	Arg	Asp	Ile	Ala	Leu	Ser	Leu	Pro	Gln	Leu	Pro	Arg

	260		265		270
Glu Leu Pro Ser Ser His Thr Asn Ala Lys Val Ala Glu Val Leu Ser					
275			280		285
Ser Leu Leu Gly Gly Glu Gly His Phe Ser Lys Asp Val His Leu Pro					
290			295		300
His Asn Tyr His Ile Asp Phe Glu Ile Arg Met Asp Thr Asn Arg Asn					
305			310		315
Gln Val Leu Pro Leu Ser Asp Val Asp Thr Thr Ser Ala Thr Asp Ile					
	325		330		335
Gln Arg Val Ala Val Leu Cys Val Ser Arg Ser Ala Tyr Cys Leu Gly					
	340		345		350
Ser Ser His Pro Arg Gly Phe Leu Ala Met Lys Met Arg His Leu Asn					
	355		360		365
Ala Met Gly Phe His Val Ile Leu Val Asn Asn Trp Glu Met Asp Lys					
	370		375		380
Leu Glu Met Glu Arg Ala Val Thr Phe Leu Lys Thr Lys Ile Tyr Ser					
385			390		395
Val Glu Ala Leu Pro Val Ala Ala Val Asn Val Gln Ser Thr Gln					
	405		410		415

<210> 2663

<211> 1024

<212> DNA

<213> Homo sapiens

<400> 2663

```

nngtggctgc agcggggccc gcgtggtgcc tcctgaggcg gccccggat gaagagatct
60
gggaaccccg gagccgaggt aacgaacagc tcggtggcag ggcctgactg ctgcggaggc
120
ctcggaata ttgattttag acaggcagac ttctgcgtta tgacccggct gctgggctac
180
gtggaccccc tggatcccag ctttgtggct gccgtcatca ccatcacctt caatccgctc
240
tactggaatg tggttgcacg atgggaacac aagaccgcga agctgagcag ggccttcgga
300
tccccctacc tggcctgcta ctctctaagc gtcaccatcc tgctcctgaa cttcctgcgc
360
tcgcactgct tcacgcaggc catgctgagc cagcccagga tggagagcct ggacaccccc
420
gcggcctaca gcctgggcct cgcgctcctg ggactgggcg tcgtgctcgt gctctccagc
480
ttctttgcac tgggggttcgc tggaactttc ctaggtgatt acttcgggat cctcaaggag
540
gcgagagtga ccgtgttccc cttcaacatc ctggacaacc ccatgtactg ggggaagcaca
600
gccaactacc tgggctgggc catcatgcac gccagcccca cgggcctgct cctgacgggtg
660
ctggtggccc tcacctacat aatggctctc ctatacgaag agcccttcac cgctgagatc
720
taccggcaga aagcctccgg gtcccacaag aggagctgat tgagctgcaa cagctttgct
780
gaaggcctgg ccagcctccc tcgtgcccc aagggcaggc cctgcgcagg gcgagaatgg
840

```

tgctgtgtgc tcagggcctc ccccgcggtg ggctgccccca gtgccttgga acctgtgtcc
 900
 ttgggggaccc tggacgtgcc gacatatggc cattgagctc caaccacac attcccatc
 960
 accaataaag gcaccctgac cccaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1020
 aaaa
 1024

<210> 2664
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 2664
 Met Thr Arg Leu Leu Gly Tyr Val Asp Pro Leu Asp Pro Ser Phe Val
 1 5 10 15
 Ala Ala Val Ile Thr Ile Thr Phe Asn Pro Leu Tyr Trp Asn Val Val
 20 25 30
 Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
 35 40 45
 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Leu Asn
 50 55 60
 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
 65 70 75 80
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
 85 90 95
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
 100 105 110
 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
 115 120 125
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
 130 135 140
 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
 145 150 155 160
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
 165 170 175
 Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
 180 185 190
 Ser Gly Ser His Lys Arg Ser
 195

<210> 2665
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 2665
 nnccgcgggc atgtctgtgt gtatgtgtgt gtgtgcacgc gcgtgcatgc atgcatgctg
 60
 cgaggggagg aagggaagcg tggaaggggg gagagagttg ttgtctagcc tctgagagca
 120
 gcgccaatgc gaagcgttgc agtcgcttga ctacactgag gctctccaag gataccttca
 180

atgcctgcac tgtaagggag ctgcttttcc cgggtgctgg cgagaacgga agccttcctt
 240
 tgacgttttt ctaaaccatgg gatgcagtct gtgcagcctg cagaagcaag aggagcagta
 300
 caaattactt atgaagtttg tcaggtcaac ggcagagact tatccagagc aactcatgac
 360
 caggctgtgg aagcttttcaa gacagccaag gagcccatag tgggtgcaggt gttgagaaga
 420
 acaccaagga ccaaaatggt cagcctcca tcagagtctc agctgggtgga caggggaacc
 480
 caaacggaca tcaccttga acatatcatg gccctcacta agatgtcctc tcccagccca
 540
 cccgtgctgg atccctatct cttgccagag gagcatccct cagcccatga atactacgat
 600
 ccaaatgact acattggaga catccatcag gagatggaca gggaggagct ggagctggag
 660
 gaagtggacc tctacagaat gaacagccag gacaagctgg gcctcactgt gtgctaccgg
 720

<210> 2666

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2666

Met	Gln	Ser	Val	Gln	Pro	Ala	Glu	Ala	Arg	Gly	Ala	Val	Gln	Ile	Thr
1				5				10					15		
Tyr	Glu	Val	Cys	Gln	Val	Asn	Gly	Arg	Asp	Leu	Ser	Arg	Ala	Thr	His
			20					25					30		
Asp	Gln	Ala	Val	Glu	Ala	Phe	Lys	Thr	Ala	Lys	Glu	Pro	Ile	Val	Val
			35					40					45		
Gln	Val	Leu	Arg	Arg	Thr	Pro	Arg	Thr	Lys	Met	Phe	Thr	Pro	Pro	Ser
			50					55					60		
Glu	Ser	Gln	Leu	Val	Asp	Thr	Gly	Thr	Gln	Thr	Asp	Ile	Thr	Phe	Glu
65						70					75				80
His	Ile	Met	Ala	Leu	Thr	Lys	Met	Ser	Ser	Pro	Ser	Pro	Pro	Val	Leu
						85					90				95
Asp	Pro	Tyr	Leu	Leu	Pro	Glu	Glu	His	Pro	Ser	Ala	His	Glu	Tyr	Tyr
			100					105					110		
Asp	Pro	Asn	Asp	Tyr	Ile	Gly	Asp	Ile	His	Gln	Glu	Met	Asp	Arg	Glu
			115					120					125		
Glu	Leu	Glu	Leu	Glu	Glu	Val	Asp	Leu	Tyr	Arg	Met	Asn	Ser	Gln	Asp
			130					135					140		
Lys	Leu	Gly	Leu	Thr	Val	Cys	Tyr	Arg							
145								150							

<210> 2667

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2667

nccatgggga atgggatgaa caagatcctg cccggcctgt acatcgga cttcaaagat
 60

gccagagacg cggaacaatt gagcaagaac aaggggaacc ctttttctgt ttgtccccga
 120
 tgggtgccag gcctatgttg gaggacaaga catttcaaag aaagtattaa attcattcac
 180
 gagtgccggc tccgcgggga gagctgcctt gtacactgcc tggccggggg ctccaggagc
 240
 gtgacactgg tgatcgcata catcatgacc gtcactgact ttggctggg
 289

<210> 2668

<211> 96

<212> PRT

<213> Homo sapiens

<400> 2668

Xaa	Met	Gly	Asn	Gly	Met	Asn	Lys	Ile	Leu	Pro	Gly	Leu	Tyr	Ile	Gly
1			5					10					15		
Asn	Phe	Lys	Asp	Ala	Arg	Asp	Ala	Glu	Gln	Leu	Ser	Lys	Asn	Lys	Gly
		20					25					30			
Asn	Pro	Phe	Ser	Val	Cys	Pro	Arg	Trp	Val	Pro	Gly	Leu	Cys	Trp	Arg
	35					40				45					
Thr	Arg	His	Phe	Lys	Glu	Ser	Ile	Lys	Phe	Ile	His	Glu	Cys	Arg	Leu
	50				55					60					
Arg	Gly	Glu	Ser	Cys	Leu	Val	His	Cys	Leu	Ala	Gly	Val	Ser	Arg	Ser
65				70					75				80		
Val	Thr	Leu	Val	Ile	Ala	Tyr	Ile	Met	Thr	Val	Thr	Asp	Phe	Gly	Trp
			85					90					95		

<210> 2669

<211> 4285

<212> DNA

<213> Homo sapiens

<400> 2669

gcgcgccggt aaaaatggcg aaatgggggt aggcggcgct ggacctgaag agatggggcg
 60
 cgcaggtggg gcggttggtca gagccccctg acgtggggcg cgggctttta tcggcgattt
 120
 gatctggcga cctcggggcg gcgcctaaga ggtcagactg cggagcctgc gggtcgccag
 180
 cggccccgcc gagagccgga ggcaatggat gaacagagcg tggagagcat tgctgaggtt
 240
 ttccgatgtt tcatttgtat ggagaaattg cgggatgcac gcctgtgtcc tcattgtccc
 300
 aaactgtgtt gtttcagctg tattaggcgc tggtgacag agcagagagc tcaatgtcct
 360
 cattgccgtg ctccactcca gctacgagaa ctagtaaatt gtcgttgggc agaagaagta
 420
 acacaacagc ttgatactct tcaactctgc agtctcacca aacatgaaga aaatgaaaag
 480
 gacaaatgtg aaaatcacca tgaaaaactt agtgtatttt gctggacttg taagaagtgt
 540
 atctgccatc agtgtgcact ttggggagga atgcatggcg gacatacctt taaacctttg
 600

gcagaaatTT atgagcaaca cgtcactaaa gtgaatgaag aggtagccaa acttcgtcgg
660
cgtctcatgg aactgatcag cttagttcaa gaagtggaaa ggaatgtaga agctgtaaga
720
aatgcaaaag atgagcgtgt tcgggaaatt aggaatgcag tggagatgat gattgcacgg
780
ttagacacac agctgaagaa taagcttata aactgatgg gtcagaagac atctctaacc
840
caagaaacag agcttttggg atccttactt caggaggtgg agcaccagtt gcggtcttgt
900
agtaagagtg agttgatatc taagagctca gagatcctta tgatgtttca gcaagttcat
960
cggaagccca tggcatcttt tgttaccact cctgttccac cagactttac cagtgaatta
1020
gtgccatctt acgattcagc tacttttgtt ttagagaatt tcagcacttt gcgtcagaga
1080
gcagatcctg tttacagtcc acctcttcaa gtttcaggac tttgctggag gttaaaagtt
1140
taccagatg gaaatggagt tgtgcgaggt tactacttat ctgtgtttct ggagctctca
1200
gctggcttgc ctgaaacttc taaatatgaa tatcgtgtag agatggttca ccagtcctgt
1260
aatgatccta caaaaaatat cattcgagaa tttgcatctg actttgaagt tggagaatgc
1320
tggtgttata atagatTTTT ccgtttggac ttactcgcaa atgaaggata cttgaatcca
1380
caaatgata cagtgatTTT aaggtttcag gtacgttcac caactttctt tcaaaaatcc
1440
cgggaccagc attggtacat tactcagttg gaagctgcac agactagtta tatccaacaa
1500
ataaacaacc ttaaagagag acttactatt gagctgtctc gaactcagaa gtcaagagat
1560
ttgtcaccac cagataacca tcttagcccc caaatgatg atgctctgga gacacgagct
1620
aagaagtctg catgctctga catgcttctc gaaggtggtc ctactacagc ttctgtaaga
1680
gaggccaaag aggatgaaga agatgaggag aagattcaga atgaagatta tcatcacgag
1740
ctttcagatg gagatctgga tctggatctt gtttatgagg atgaagtaaa tcagctcgat
1800
ggcagcagtt cctctgctag ttccacagca acaagtaata cagaagaaaa tgatattgat
1860
gaagaaacta tgtctggaga aaatgatgtg gaatataaca acatggaatt agaagagggg
1920
gaactcatgg aagatgcagc tgctgcagga cccgcaggta gtagccatgg ttatgtgggt
1980
tccagtagta gaatatcaag aagaacacat ttatgctccg ctgctaccag tagtttacta
2040
gacattgatc cattaatTTT aatacatTTT ttggacctta aggaccggag cagtatagaa
2100
aatttgtggg gcttacagcc tcgccacct gcttacttc tgcagccac agcatcatat
2160
tctcgaaaag ataaagacca aaggaagcaa caggcaatgt ggcgagtgcc ctctgattta
2220

aagatgctaa aaagactcaa aactcaaatg gccggagttc gatgtatgaa aactgatgta
2280
aagaatacac tttcagaaat aaaaagcagc agtgctgctt ctggagacat gcagacaagc
2340
cttttttctg ctgaccaggc agctctggct gcatgtggaa ctgaaaactc tggcagattg
2400
caggatttgg gaatggaact cctggcaaag tcatcagttg ccaattgtta catacgaaac
2460
tccacaaata agaagagtaa ttcgccaag ccagctcgat ccagtgtagc aggtagtcta
2520
tcacttcgaa gagcagtggg ccctggagaa aatagtcgtt caaagggaga ctgtcagact
2580
ctgtctgaag gctccccagg aagctctcag tctgggagca ggcacagttc tccccgagcc
2640
ttgatacatg gcagtatcgg tgatattctg cccaaaactg aagaccggca gtgtaaagct
2700
ttggattcag atgctgttgt ggttgcagtt ttcagtggct tgcttgcggt tgagaaaagg
2760
aggaaaatgg tcaccttggg ggctaagtct aaaggaggct atctggaagg actgcagatg
2820
actgatttgg aaaataattc tgaaactgga gagttacagc ctgtactacc tgaaggagct
2880
tcagctgccc ctgaagaagg aatgagtagc gacagtgaca ttgaatgtga cactgagaat
2940
gaggagcagg aagagcatac cagtgtgggc gggtttcacg actccttcac ggtcatgaca
3000
cagcccccg atgaagatac acattccagt tttcctgatg gtgaacaaat aggccctgaa
3060
gatctcagct tcaatacaga tgaaaatagt ggaaggtaat tgccaaatca agagaactga
3120
cttgcaagct accttgacct tgaattttgc tgtagttagt gctcaaattt gtcacagtc
3180
agataatcag atttggtctt atttcttcat tatctcgacc tgaaatagta atttggaaac
3240
tgttggaagg tggcacagtt tagtctaaga cagcagtagt acatgggaaa aacagtatgg
3300
gaagagttct ttgtaatgta aggaaataac aatgtagttc tctattaatt tagcaaattt
3360
gtacattcac aaaaggcagt ttgtctacta cagcagaagg ctgggttaact gccagaaaat
3420
gtacctccag gccctgcatg ccgtcagtaa cccgcccggc attggtgctc tactgtcttt
3480
ggctagagct tagttgtgtt taaataatca tctttatatt tggggtttta attacagttc
3540
cattagtgcc tgtagattag tgaacagaaa attgctttgg aagagattct gccctgtaga
3600
cactatgtga ataactgaag taacactaga ctgaatctcc tttttggagt atgtatcttc
3660
tctcatttgt tcaagtacag gcacactgtt caaccgcatg gtatctttct gttgtgtgac
3720
ttctacaaat gttattttta atgaaattaa gttacatgg attcattacg ttctggccc
3780
tgtagacacg tgtaagatta tttaaaattc tttcattttt ttctgcctct tactatacga
3840

ctgtagtgca acaaataattt taaagccccc tttcttctt tattttcatt agttgtacat
 3900
 tgatttcagt gtcaacacat ttaaagattc attcatgttg cacagtggct tacatgaacg
 3960
 tgaaactgtg atataagggtt ttctttcata ctcataatta gcccaaaaca gttgccaaac
 4020
 tttgccattg tgctcctgca tttgtgtttg agctgctata tatttgtgga aattacactg
 4080
 aaagttgact aagagactat tgaaaaagca tgaataatta aatatacatg tgagagacat
 4140
 ctcactgtgt gtattttact tagtgaatat tgttcactct tccgtgtctg atgtcttgc
 4200
 gaatgctgtg actcatagtt tacttttgtt caaaatagtt tgcacttttt gttaataaaa
 4260
 tcaacttgag aaaaaaaaaa aaaaa
 4285

<210> 2670

<211> 979

<212> PRT

<213> Homo sapiens

<400> 2670

Ala	Glu	Pro	Ala	Gly	Arg	Gln	Arg	Pro	Arg	Arg	Glu	Pro	Glu	Ala	Met
1				5					10					15	
Asp	Glu	Gln	Ser	Val	Glu	Ser	Ile	Ala	Glu	Val	Phe	Arg	Cys	Phe	Ile
			20					25					30		
Cys	Met	Glu	Lys	Leu	Arg	Asp	Ala	Arg	Leu	Cys	Pro	His	Cys	Ser	Lys
		35					40					45			
Leu	Cys	Cys	Phe	Ser	Cys	Ile	Arg	Arg	Trp	Leu	Thr	Glu	Gln	Arg	Ala
	50					55					60				
Gln	Cys	Pro	His	Cys	Arg	Ala	Pro	Leu	Gln	Leu	Arg	Glu	Leu	Val	Asn
65					70					75				80	
Cys	Arg	Trp	Ala	Glu	Glu	Val	Thr	Gln	Gln	Leu	Asp	Thr	Leu	Gln	Leu
			85					90					95		
Cys	Ser	Leu	Thr	Lys	His	Glu	Glu	Asn	Glu	Lys	Asp	Lys	Cys	Glu	Asn
			100					105					110		
His	His	Glu	Lys	Leu	Ser	Val	Phe	Cys	Trp	Thr	Cys	Lys	Lys	Cys	Ile
		115					120					125			
Cys	His	Gln	Cys	Ala	Leu	Trp	Gly	Gly	Met	His	Gly	Gly	His	Thr	Phe
		130				135					140				
Lys	Pro	Leu	Ala	Glu	Ile	Tyr	Glu	Gln	His	Val	Thr	Lys	Val	Asn	Glu
145					150					155				160	
Glu	Val	Ala	Lys	Leu	Arg	Arg	Arg	Leu	Met	Glu	Leu	Ile	Ser	Leu	Val
			165					170					175		
Gln	Glu	Val	Glu	Arg	Asn	Val	Glu	Ala	Val	Arg	Asn	Ala	Lys	Asp	Glu
		180					185					190			
Arg	Val	Arg	Glu	Ile	Arg	Asn	Ala	Val	Glu	Met	Met	Ile	Ala	Arg	Leu
		195				200						205			
Asp	Thr	Gln	Leu	Lys	Asn	Lys	Leu	Ile	Thr	Leu	Met	Gly	Gln	Lys	Thr
	210					215					220				
Ser	Leu	Thr	Gln	Glu	Thr	Glu	Leu	Leu	Glu	Ser	Leu	Leu	Gln	Glu	Val
225					230				235					240	
Glu	His	Gln	Leu	Arg	Ser	Cys	Ser	Lys	Ser	Glu	Leu	Ile	Ser	Lys	Ser

[illegible]

675	680	685
Met Leu Lys Arg Leu Lys Thr Gln Met Ala Gly Val Arg Cys Met Lys		
690	695	700
Thr Asp Val Lys Asn Thr Leu Ser Glu Ile Lys Ser Ser Ser Ala Ala		
705	710	715
Ser Gly Asp Met Gln Thr Ser Leu Phe Ser Ala Asp Gln Ala Ala Leu		
725	730	735
Ala Ala Cys Gly Thr Glu Asn Ser Gly Arg Leu Gln Asp Leu Gly Met		
740	745	750
Glu Leu Leu Ala Lys Ser Ser Val Ala Asn Cys Tyr Ile Arg Asn Ser		
755	760	765
Thr Asn Lys Lys Ser Asn Ser Pro Lys Pro Ala Arg Ser Ser Val Ala		
770	775	780
Gly Ser Leu Ser Leu Arg Arg Ala Val Asp Pro Gly Glu Asn Ser Arg		
785	790	795
Ser Lys Gly Asp Cys Gln Thr Leu Ser Glu Gly Ser Pro Gly Ser Ser		
805	810	815
Gln Ser Gly Ser Arg His Ser Ser Pro Arg Ala Leu Ile His Gly Ser		
820	825	830
Ile Gly Asp Ile Leu Pro Lys Thr Glu Asp Arg Gln Cys Lys Ala Leu		
835	840	845
Asp Ser Asp Ala Val Val Val Ala Val Phe Ser Gly Leu Pro Ala Val		
850	855	860
Glu Lys Arg Arg Lys Met Val Thr Leu Gly Ala Asn Ala Lys Gly Gly		
865	870	875
His Leu Glu Gly Leu Gln Met Thr Asp Leu Glu Asn Asn Ser Glu Thr		
885	890	895
Gly Glu Leu Gln Pro Val Leu Pro Glu Gly Ala Ser Ala Ala Pro Glu		
900	905	910
Glu Gly Met Ser Ser Asp Ser Asp Ile Glu Cys Asp Thr Glu Asn Glu		
915	920	925
Glu Gln Glu Glu His Thr Ser Val Gly Gly Phe His Asp Ser Phe Met		
930	935	940
Val Met Thr Gln Pro Pro Asp Glu Asp Thr His Ser Ser Phe Pro Asp		
945	950	955
Gly Glu Gln Ile Gly Pro Glu Asp Leu Ser Phe Asn Thr Asp Glu Asn		
965	970	975
Ser Gly Arg		

<210> 2671

<211> 814

<212> DNA

<213> Homo sapiens

<400> 2671

```

nnacgcgtgc gcagaagggc gggaagggag aggagacacg ccggggccca gcgccggccg
60
gcctgacccc ctcaagtctgt ctctatgggc gcgcgccgac agcctcgcg caccggccccg
120
gggccccggc tgaggggtgcg cgcgcagcac cccgggaagg tgggggggag gcggtggcgg
180
aaagattcgc gcgcagtcag ccgtcatggg aggggggaact gtggggcggt cgccatcttg
240

```

tctccctctc cttacctgcg tcttcggggg cgtgcgcacc acccccccctc ccgcctagga
 300
 ggggggagggg cccctctctg gccaccgcct tcgcggcctt taaactcccc tggagactgc
 360
 ggctactgcc accgccttgc ctccactgcc tcttcgcgca gcacacagat gcggacggtg
 420
 ggtgggaaaa agggcgacgc tactcccagc gaaccgccgc tgccgctccc gaggcctnca
 480
 ccaaaatggc cgccgcgcgc tcggccgcca ccaccaccac taccaccacc actcgctcgg
 540
 aatcgctatc gccggcgagg cccgtcttct cgcgagagac aatcaccag taagctgcag
 600
 caagttagca gtggaacctg ggcttcccga tteccatggc agcccacttc tgtagcgctg
 660
 cttcgtttta cgcgaggatg gtttctgat agctttcaaa cacctttgcc atctcttcgc
 720
 aaactttcta gattaagaat ccctttgaga atctgatacc tttaccccag aatagaacaa
 780
 taaataacag ctaccttcta ctgacactaa aaaa
 814

<210> 2672

<211> 223

<212> PRT

<213> Homo sapiens

<400> 2672

Met	Gly	Ala	Arg	Arg	Gln	Pro	Arg	Ala	Pro	Ala	Pro	Gly	Pro	Arg	Leu
1				5					10					15	
Arg	Val	Arg	Ala	Gln	His	Pro	Gly	Lys	Val	Gly	Gly	Arg	Arg	Trp	Arg
			20					25					30		
Lys	Asp	Ser	Arg	Ala	Val	Ser	Arg	His	Gly	Arg	Gly	Asn	Cys	Gly	Ala
		35						40				45			
Phe	Ala	Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Leu	Arg	Pro	Arg	Gly	Arg	Ala
	50						55				60				
His	His	Pro	Pro	Ser	Arg	Leu	Gly	Gly	Gly	Arg	Ala	Pro	Ser	Trp	Pro
65					70					75				80	
Pro	Pro	Ser	Arg	Pro	Leu	Asn	Ser	Pro	Gly	Asp	Cys	Gly	Tyr	Cys	His
				85					90					95	
Arg	Leu	Ala	Ser	Thr	Ala	Ser	Ser	Arg	Ser	Thr	Gln	Met	Arg	Thr	Val
			100					105					110		
Gly	Gly	Lys	Lys	Gly	Asp	Ala	Thr	Pro	Ser	Glu	Pro	Pro	Leu	Pro	Leu
		115					120						125		
Pro	Arg	Pro	Xaa	Pro	Lys	Trp	Pro	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Pro
		130				135					140				
Pro	Leu	Pro	Pro	Pro	Leu	Ala	Arg	Asn	Arg	Tyr	Arg	Arg	Arg	Gly	Pro
145					150					155				160	
Ser	Ser	Arg	Glu	Arg	Gln	Ser	Pro	Ser	Lys	Leu	Gln	Gln	Val	Ser	Ser
			165						170					175	
Gly	Thr	Trp	Ala	Ser	Arg	Phe	Pro	Trp	Gln	Pro	Thr	Ser	Val	Ala	Leu
			180					185					190		
Leu	Arg	Phe	Thr	Arg	Gly	Trp	Phe	Pro	Asp	Ser	Phe	Gln	Thr	Pro	Leu
		195					200					205			
Pro	Ser	Leu	Arg	Lys	Leu	Ser	Arg	Leu	Arg	Ile	Pro	Leu	Arg	Ile	

210	215	220
<210> 2673		
<211> 5035		
<212> DNA		
<213> Homo sapiens		
<400> 2673		
cggggacggg	ggccccggtgg	gccccgaggag gaaagatact ggggagtggg agccgcgggg
60		
ttcagagcga	tgattcccc	acaggaggca tccgctcgac ggcgggagat tgaggacaag
120		
ctgaagcagg	aggaggagac	tctgtccttc atccgagaca gcctggagaa gagcgaccag
180		
ctcactaaga	acatggtgtc	tatcttatca tcctttgaga gccgccttat gaagctggag
240		
aaactccatca	tcctgtgca	caagcagacg gagaatctgc agcggctgca ggagaatgtt
300		
gagaagacgc	tgtcctgcct	ggaccatgtc atcagctact accatgtggc cagtgcact
360		
gagaagatca	tcagagaggg	ccccacaggt aggctggaag agtacctggg aagcatggcc
420		
aagattcaga	aggcagtgga	gtatttccag gacaacagcc cagacagccc ggaactcaac
480		
aaagtgaac	tgctctttga	gcgcgggaag gaggccctgg agtccgaatt tcgcagcctg
540		
atgacgggc	acagtaaggt	cgtctcgccc gtgctcatct tggatctgat cagtggtgac
600		
gatgatctgg	aggcccagga	ggacgtgacc ctggagcacc tgcccagagag cgtgctccag
660		
gatgtcattc	gcctctccc	ctggctggtg gaatatggcc gcaaccaaga tttcatgaac
720		
gtctactacc	agatacgtc	cagccagctg gaccgctcca tcaaaggact gaaggagcat
780		
ttccataaga	gcagttcttc	ctctgggggtt cctactccc ctgctatccc caacaagagg
840		
aaagacacac	ctaccaagaa	gccagtcaag cggccaggga cgatccgtaa ggctcagaac
900		
cttctgaaac	agtattccca	gcatggtcta gatgggaaaa aggggggctc taacctcatt
960		
cctctggaag	ggagagatga	catgctggac gtggagaccg atgcctacat cactgcgtc
1020		
agtgccttcg	tcaagctggc	gcagagcgag taccagctgc tggccgacat catccccgag
1080		
caccaccaga	agaagacctt	cgactccctg atacaggatg ccctggatgg gctgatgctt
1140		
gaaggggaga	acatcgtgtc	tgctgcccgg aaggccattg tgcgacacga cttctccacg
1200		
gtgctcaccg	tcttccccat	cctgcgacac ctcaagcaga ccaagcctga gtttgaccag
1260		
gtgctccagg	gcacggctgc	cagcacaaag aacaagctgc ctggcctcat cacatccatg
1320		
gagaccatcg	gtgccaaagc	gctggaggac ttgcgagaca acatcaagaa tgaccgggac
1380		

aaggagtaca acatgccgaa ggacggcacc gtacacgagc tcaccagcaa tgccatcctc
1440
ttcctgcagc agcttttggg cttccaggag acggcaggcg ccatgctggc ctcccaagag
1500
accagctctt cgcccaccag ctacagctct gagttcagca agcggctgct aagcacctat
1560
atctgtaaag tgctgggcaa cctgcagttg aacttgctga gcaagtccaa ggtgtacgag
1620
gacccagctc tgagcgccat cttcctgcac aacaactaca attacatcct caagtccttg
1680
gagaagtctg aactgatcca gctgggtggc gtgacacaga agactgctga gcgtcctac
1740
cgggagcaca ttgagcagca gatccagacc taccagcgca gctgggttaa ggtgactgat
1800
tacatcgagc agaagaatct acctgtgttc cagccgggag tcaagctccg ggacaaggag
1860
cggcagatta tcaaggagcg ttttaagggc ttcaatgatg gcctcgaaga actgtgcaaa
1920
atccagaagg cctgggctat tccagacaca gagcagaggg acaggattcg ccaggcccag
1980
aagaccattg tcaaggagac ctacggggcc tttctacaga agtttggcag cgtgccttc
2040
accaagaacc cggagaagta catcaagtac ggggtggagc aggtgggcga catgatcgat
2100
cgctttttcg acacctctgc ctgagcctgc tgctagccct gcctgggtcc accagactgg
2160
cgtgtcattg gacagataaa ccagtgttag cttgcctctg ggctgggtga gcttgaagtc
2220
ctctgggaca gagacctgtc tccacgcctc cgggagctgt gtccctgagc cccctagtcc
2280
tggctcctgc tttttcccca cagcccgtgt tcccagccga accagcactc tcccgaagc
2340
ctgggggtccc tccacacctt ggcttttatg accctgatgg cttctgaaac aggaaaagag
2400
agaaggaaga cagaggcctg tgcccactgc tgctccatgt gtaccaagag cagcagggca
2460
gaagggccct ccctccagcc taggtcagag gtggggacag agaactcccc tacagcccag
2520
agatgtggca gggctcagag aagcagccag agctcctgga ggaaaggcag tcgggactga
2580
ccccctctct taaaacacat tccgcccgc ccacaggcct gaggtctggg acctttccct
2640
cccaggagtc ccctagatgg ctgggggagg caggctcact ggccattttc cctagagtcc
2700
agcacactgc aggaggcggt cggaggagga gttccgcccc accctctaca gccttctca
2760
ggccctctgc tctggccccc agcctcagtg cctcttggcc cagggccagg cagtcgtggg
2820
tgcagaagga gcaattagtc tgctgcctg tgggctggga gacagggaca atggggaaaa
2880
gttaaggagc aaaatggggg ttggaagcaa aaaatagggc cccacctatt taggacgaga
2940
ttgaagactg acccttgagg cacacttgca ctggagatgg gtttatttca cgctctgtgc
3000

ttgtgtgcta gcgaggagg agctcagggg ggcttaatcc agaggccctg tcatggcccc
3060
ccccagcca tgggaaagca aacttcaccc taagggtgtgc agcccaggcc ctgccccctt
3120
acagtctagg ccgcctgcca tgggggtgcag cctctccagg ggctgogtca gacttgacag
3180
ctgccccacat ccagattcct gcaaagacga attgggtgca cagcacccca accacataca
3240
cgaggaagaa gatgcgggtca gcagtctcag gccagcttct ctgtgacccc tttactcctc
3300
tggaggggctc tgtggggaga gatacagggg aaggagctgt tcttcaaggc cccctcaaca
3360
tgagcggaag agcgaacccc aggggtcatc agcctgtatc gcttcctttc ttagattctc
3420
agctgatgaa aatttggtgc tggcccatct caggccatct tcagttgaag aaacaccctc
3480
ttaggtgtg caaggcatgg gttatcaggg gattgaggtc acctgggact tcagggaggc
3540
tcagcttgtc cctgccccca gacctgttct ttctaaggga ggaggacatg gtggagacca
3600
gggacaggag agccagcagg gtggatgcaa ggggcctcta cccacacctg gacctccgtg
3660
ccctcacccc agccctaggt gtgcacctag gcctcattcc ttacccccca gccctgccc
3720
accttcagca ggatgaggcc ctgggttgcc gtgctctcgc tgttccccctc tcggggctgg
3780
gctggggccg ctcttgccc caagggtgcc ccgggccagc agcccagcca gcagcacagt
3840
ctctatggtg ctgaggaaga gcagcagcag caggatggtg aagtagtaaa ctgggggagg
3900
cagggcacag ggagatgctc agggggcagc ccctgtgtct ctggtgcccc gcgagctgag
3960
caccagtggg tgaccgggga gaaacagggc agactgggta agggagcagg gcttactgag
4020
cagtgggttg caggaggagg agctgggcag ggcctgcacc agggaggagt ggaggacgag
4080
gtaactcagc agcaatgtca ccttgtagcc tatgcgctca atggcccga ggggcagcaa
4140
ccccccgcac acgtcagcca acagcagtgc ctctgcaggc accaagagag cgatgatgga
4200
cttgagcgcc gtgttcttca gcctcagctg gaaggggaaa agtcaggggc ttcccggcgg
4260
gggggaagga ggtgggcac gggggcatgg ggcctggcct ctggccgtgc atcctcactc
4320
ccaccgcct ccagcagccc tctgtcgcc tcctcccgac ttgactcacc gtcacctgga
4380
agcagggcac cagctgctgg ggtgggactt gggcttctcag atcataaact acgtattccc
4440
tcttgacact cacaatctcg ttcaccacgt gggcctggaa ctctaactcc atcgtgagg
4500
ggtgggaatg agaactatga accaggaagg agagatccca gctgccaaagt ctgggggtag
4560
cagactggag cccaggggtg atggagactt ttgatggctt ttggcaggga cagacttga
4620

cacaaaaccg atccatagaa gggcttccca aaccttgttt tgcaacatcc caaattgtct
 4680
 ccagttgaag gaaggccttt atcagattca tagatgagct ttcattgtaa aaataaatgt
 4740
 actttgcacc acttcatgat ggagggagaa gtggtcacag gctcgtcagt ctatcatctc
 4800
 acagctgaag caggatcccc agggctaccg ctgtggtctc tcatggaggg aagggtagga
 4860
 cttctctgcc aagttagatg tcacctgatg ggtttataca ggggtggctgc accttcaggt
 4920
 ggtttccagg agtgaggcca tggcaacctg agcctctggc cttgctgcaa ggggccgagc
 4980
 cactgcagtc gccatggctg tggagggcag ttgctctggg gaggacagaa gactg
 5035

<210> 2674

<211> 690

<212> PRT

<213> Homo sapiens

<400> 2674

Ala	Ala	Gly	Phe	Arg	Ala	Met	Ile	Pro	Pro	Gln	Glu	Ala	Ser	Ala	Arg
1				5					10					15	
Arg	Arg	Glu	Ile	Glu	Asp	Lys	Leu	Lys	Gln	Glu	Glu	Glu	Thr	Leu	Ser
		20						25					30		
Phe	Ile	Arg	Asp	Ser	Leu	Glu	Lys	Ser	Asp	Gln	Leu	Thr	Lys	Asn	Met
		35					40					45			
Val	Ser	Ile	Leu	Ser	Ser	Phe	Glu	Ser	Arg	Leu	Met	Lys	Leu	Glu	Asn
	50					55					60				
Ser	Ile	Ile	Pro	Val	His	Lys	Gln	Thr	Glu	Asn	Leu	Gln	Arg	Leu	Gln
	65				70					75				80	
Glu	Asn	Val	Glu	Lys	Thr	Leu	Ser	Cys	Leu	Asp	His	Val	Ile	Ser	Tyr
				85					90					95	
Tyr	His	Val	Ala	Ser	Asp	Thr	Glu	Lys	Ile	Ile	Arg	Glu	Gly	Pro	Thr
			100					105					110		
Gly	Arg	Leu	Glu	Glu	Tyr	Leu	Gly	Ser	Met	Ala	Lys	Ile	Gln	Lys	Ala
		115					120						125		
Val	Glu	Tyr	Phe	Gln	Asp	Asn	Ser	Pro	Asp	Ser	Pro	Glu	Leu	Asn	Lys
	130					135					140				
Val	Lys	Leu	Leu	Phe	Glu	Arg	Gly	Lys	Glu	Ala	Leu	Glu	Ser	Glu	Phe
	145				150					155				160	
Arg	Ser	Leu	Met	Thr	Arg	His	Ser	Lys	Val	Val	Ser	Pro	Val	Leu	Ile
			165						170					175	
Leu	Asp	Leu	Ile	Ser	Gly	Asp	Asp	Asp	Leu	Glu	Ala	Gln	Glu	Asp	Val
		180					185						190		
Thr	Leu	Glu	His	Leu	Pro	Glu	Ser	Val	Leu	Gln	Asp	Val	Ile	Arg	Ile
	195						200						205		
Ser	Arg	Trp	Leu	Val	Glu	Tyr	Gly	Arg	Asn	Gln	Asp	Phe	Met	Asn	Val
	210					215					220				
Tyr	Tyr	Gln	Ile	Arg	Ser	Ser	Gln	Leu	Asp	Arg	Ser	Ile	Lys	Gly	Leu
	225				230					235				240	
Lys	Glu	His	Phe	His	Lys	Ser	Ser	Ser	Ser	Ser	Gly	Val	Pro	Tyr	Ser
			245						250					255	
Pro	Ala	Ile	Pro	Asn	Lys	Arg	Lys	Asp	Thr	Pro	Thr	Lys	Lys	Pro	Val

			260					265					270			
Lys	Arg	Pro	Gly	Thr	Ile	Arg	Lys	Ala	Gln	Asn	Leu.	Leu	Lys	Gln	Tyr	
			275				280						285			
Ser	Gln	His	Gly	Leu	Asp	Gly	Lys	Lys	Gly	Gly	Ser	Asn	Leu	Ile	Pro	
			290			295					300					
Leu	Glu	Gly	Arg	Asp	Asp	Met	Leu	Asp	Val	Glu	Thr	Asp	Ala	Tyr	Ile	
305					310					315					320	
His	Cys	Val	Ser	Ala	Phe	Val	Lys	Leu	Ala	Gln	Ser	Glu	Tyr	Gln	Leu	
				325					330					335		
Leu	Ala	Asp	Ile	Ile	Pro	Glu	His	His	Gln	Lys	Lys	Thr	Phe	Asp	Ser	
			340					345					350			
Leu	Ile	Gln	Asp	Ala	Leu	Asp	Gly	Leu	Met	Leu	Glu	Gly	Glu	Asn	Ile	
		355					360					365				
Val	Ser	Ala	Ala	Arg	Lys	Ala	Ile	Val	Arg	His	Asp	Phe	Ser	Thr	Val	
		370				375					380					
Leu	Thr	Val	Phe	Pro	Ile	Leu	Arg	His	Leu	Lys	Gln	Thr	Lys	Pro	Glu	
385					390					395					400	
Phe	Asp	Gln	Val	Leu	Gln	Gly	Thr	Ala	Ala	Ser	Thr	Lys	Asn	Lys	Leu	
				405					410					415		
Pro	Gly	Leu	Ile	Thr	Ser	Met	Glu	Thr	Ile	Gly	Ala	Lys	Ala	Leu	Glu	
			420				425					430				
Asp	Phe	Ala	Asp	Asn	Ile	Lys	Asn	Asp	Pro	Asp	Lys	Glu	Tyr	Asn	Met	
		435					440					445				
Pro	Lys	Asp	Gly	Thr	Val	His	Glu	Leu	Thr	Ser	Asn	Ala	Ile	Leu	Phe	
		450				455					460					
Leu	Gln	Gln	Leu	Leu	Asp	Phe	Gln	Glu	Thr	Ala	Gly	Ala	Met	Leu	Ala	
465					470					475					480	
Ser	Gln	Glu	Thr	Ser	Ser	Ser	Ala	Thr	Ser	Tyr	Ser	Ser	Glu	Phe	Ser	
				485					490					495		
Lys	Arg	Leu	Leu	Ser	Thr	Tyr	Ile	Cys	Lys	Val	Leu	Gly	Asn	Leu	Gln	
			500					505					510			
Leu	Asn	Leu	Leu	Ser	Lys	Ser	Lys	Val	Tyr	Glu	Asp	Pro	Ala	Leu	Ser	
		515					520					525				
Ala	Ile	Phe	Leu	His	Asn	Asn	Tyr	Asn	Tyr	Ile	Leu	Lys	Ser	Leu	Glu	
		530				535					540					
Lys	Ser	Glu	Leu	Ile	Gln	Leu	Val	Ala	Val	Thr	Gln	Lys	Thr	Ala	Glu	
545					550					555					560	
Arg	Ser	Tyr	Arg	Glu	His	Ile	Glu	Gln	Gln	Ile	Gln	Thr	Tyr	Gln	Arg	
				565					570					575		
Ser	Trp	Leu	Lys	Val	Thr	Asp	Tyr	Ile	Ala	Glu	Lys	Asn	Leu	Pro	Val	
			580					585					590			
Phe	Gln	Pro	Gly	Val	Lys	Leu	Arg	Asp	Lys	Glu	Arg	Gln	Ile	Ile	Lys	
		595														

690

<210> 2675

<211> 711

<212> DNA

<213> Homo sapiens

<400> 2675

```

agatctcagt gaagaggacc cttgttcact gtacctcatc aacttctctc tggacgccac
60
tgtgggcatg ctgctcatct acgtgggggt gcgcgccgtc agcgctctgg tagagtggca
120
gcagtgggag tccctgcgct tcggcgaata tggagaccct ctgcagtgtg gagcctgggt
180
cgggcagtgc gctctttaca tcgtgatcat gatttttgaa aagtctgtcg tcttcacgt
240
cctctccta ctccagtgga aaaaggtggc cctattgaat ccaattgaaa accccgacct
300
gaagctggcc atcgatcatg tgatcgctcc cttctttgtc aacgctttga tgttttgggt
360
agtggacaat ttcctcatga gaaaggggaa gacgaaagct aagctagaag aaaggggagc
420
caaccaggac tcgaggaatg ggagcaaggt ccgctaccgg agggccgcat cccacgagga
480
gtctgagtct gagatcctga tctcagcgga tgatgagatg gaggagtccg acgtggagga
540
ggacctccgc agactgaccc ccctcaagcc tgtgaagaaa aagaagcacc gctttgggct
600
acccgtatga cacattccca tgctgggggt gacggggagg ccccgccagc cgctgggtgtg
660
cagaggtcat cccacagcat cgttccttac cctctctctg cccttcaccc g
711

```

<210> 2676

<211> 180

<212> PRT

<213> Homo sapiens

<400> 2676

```

Met Leu Leu Ile Tyr Val Gly Val Arg Ala Val Ser Val Leu Val Glu
 1             5             10            15
Trp Gln Gln Trp Glu Ser Leu Arg Phe Gly Glu Tyr Gly Asp Pro Leu
      20             25            30
Gln Cys Gly Ala Trp Val Gly Gln Cys Ala Leu Tyr Ile Val Ile Met
      35             40            45
Ile Phe Glu Lys Ser Val Val Phe Ile Val Leu Leu Leu Gln Trp
      50             55            60
Lys Lys Val Ala Leu Leu Asn Pro Ile Glu Asn Pro Asp Leu Lys Leu
      65             70            75            80
Ala Ile Val Met Leu Ile Val Pro Phe Phe Val Asn Ala Leu Met Phe
      85             90            95
Trp Val Val Asp Asn Phe Leu Met Arg Lys Gly Lys Thr Lys Ala Lys
      100            105           110
Leu Glu Glu Arg Gly Ala Asn Gln Asp Ser Arg Asn Gly Ser Lys Val

```

[illegible]

```
<210> 2677
<211> 735
<212> DNA
<213> Homo sapiens
```

```
<400> 2677
ngcgcgccag gaccgctcct gcaccgaggg tgcccgcgcg cgtatggagg ccttcagag
60
ggccgctggt gagggcggcc cgggccgcgg tggggcacgg cgcggtgcc a ggggtgtgca
120
gagccccctt tgcagggcag gagctgggga gtggttagga catcagtccc tcaggtaggg
180
ggagtgagca catcaggtcc atatgtgtcc caggagcatc cctagctggc cgccctgagt
240
gctgcatggg gcagagatgg gcaggtacac ggccctgcct gtgtgagcac ccctccctcc
300
gctggggcct tcagcctcct gagggagaac ttctcccatg cgccgagccc agacatgagc
360
gctgcgtccc tctgcgcact ggagcagctc atgatggccc agggccagga atgtgtgttt
420
gagggcctct caccacctgc ctccatggcc cccaagaact gcctggccca gctgcgcctg
480
gcgcaggagg ccgcccaggt gagctcgggc acccgtgtca ggatgcaggg ggtggggccg
540
agctggggtc agagcccagg tccaggcatg cgtgagctct cccacctcct tccttgtgtg
600
tcagccccga gccagctggt gtccctgctcc ctgggggggc tggtcaggaa cctggggacc
660
cgagcctctg cctccaggga atggcacaaa gcagcaggaa ctgaggtgcc agggaggctg
720
ctgggatggg ggtcg
735
```

```
<210> 2678
<211> 170
<212> PRT
<213> Homo sapiens
```

```

<400> 2678
Leu Ala Ala Leu Ser Ala Ala Trp Gly Arg Asp Gly Gln Val His Gly
 1             5             10             15
Pro Ala Cys Val Ser Thr Pro Pro Ser Ala Gly Ala Phe Ser Leu Leu
      20             25             30
Arg Glu Asn Phe Ser His Ala Pro Ser Pro Asp Met Ser Ala Ala Ser

```

		35					40					45			
Leu	Cys	Ala	Leu	Glu	Gln	Leu	Met	Met	Ala	Gln	Ala	Gln	Glu	Cys	Val
	50					55					60				
Phe	Glu	Gly	Leu	Ser	Pro	Pro	Ala	Ser	Met	Ala	Pro	Gln	Asp	Cys	Leu
65					70					75					80
Ala	Gln	Leu	Arg	Leu	Ala	Gln	Glu	Ala	Ala	Gln	Val	Ser	Ser	Gly	Thr
				85					90					95	
Arg	Val	Arg	Met	Gln	Gly	Val	Gly	Pro	Ser	Trp	Gly	Gln	Ser	Pro	Gly
			100					105					110		
Pro	Gly	Met	Arg	Glu	Leu	Ser	His	Leu	Leu	Pro	Cys	Val	Ser	Ala	Pro
		115					120					125			
Ser	Gln	Leu	Leu	Ser	Cys	Ser	Leu	Gly	Gly	Leu	Val	Arg	Asn	Leu	Gly
	130					135					140				
Thr	Arg	Ala	Ser	Ala	Ser	Arg	Glu	Trp	His	Lys	Ala	Ala	Gly	Thr	Glu
145					150					155					160
Val	Pro	Gly	Arg	Leu	Leu	Gly	Trp	Trp	Ser						
				165					170						

```
<210> 2679
<211> 560
<212> DNA
<213> Homo sapiens
```

```
<400> 2679
agcgcgcccc cctcctgttc cattataatc ttatttttggg tatgttgata caacacaatc
60
tgtccttcca agtgatcacc ggagtccaga tattttctgtc aagtcagcca accaggaagg
120
ggctgcagac aaagtgcggc aacagggact ccaccaggcc atggagctca tcccacaaga
180
cgcctcaccg cacaggaggg ctgaccccag ggaaacgtgt caccaggaca cagcacgaag
240
ctcaaaaggg gctagcatgc tctgtgcagc tgccagactc tgccctgaag aatcacaggg
300
cactctagtg agcgtctcag cagccagcag gccctggatg gccagggtgtg cagtggggag
360
gcacaggggg tgcaccagga cgcagccaga cctggggccag ttgcgcgccga ctcttctcca
420
ttccagaggt ccaggaagca cctgtcaatg tggaagtcag aatgctcagg ccaaataaccg
480
agatcaacta actattcagg ttgaaccaga ggcttggggc ggggcatcca actgcccacc
540
cgtcagactg agggacgcgt
560
```

```
<210> 2680
<211> 133
<212> PRT
<213> Homo sapiens
```

```

<400> 2680
Met Glu Leu Ile  Pro Gln Asp  Ala  Ser  Pro  His  Arg  Arg  Ala  Asp  Pro
  1              5              10              15
Arg Glu Thr Cys His Gln Asp  Thr  Ala  Arg  Ser  Ser  Lys  Gly  Ala  Ser

```

20 25 30
 Met Leu Cys Ala Ala Ala Arg Leu Cys Pro Glu Glu Ser Gln Gly Thr
 35 40 45
 Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
 50 55 60
 Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
 65 70 75 80
 Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
 85 90 95
 Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
 100 105 110
 Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
 115 120 125
 Arg Leu Arg Asp Ala
 130

<210> 2681
 <211> 585
 <212> DNA
 <213> Homo sapiens

<400> 2681
 gattctctag tagccctaatt tctacccatc tggctactaa ttcaaacttt cttccttcac
 60
 atctgtttgt ggactttctcc aatataacta gtatgcctgg gctcattctg cttcttctct
 120
 tctggaatag tttatttcat gaccatgtgc agagggggtg atggggcaag cctcacaagc
 180
 cccggagggtc tgtggctgag gtgtaccttg gctttgttgc ctggaactgc tctgactctg
 240
 ctcttcgctc tttcctgggc tgtgtcacta cagctctgac tcctttccac cttggagttt
 300
 agcttccctg ccaggaaagc taaggagtag gagttgttct tggaaacaaa tgccgagcga
 360
 tgtgtctgtg tcatctggcc tcgagaaggt tcttcattct ctgaatctga gagacgtgca
 420
 ggacaacggt ccagatttgt tttcagtact aatggttcat ctcttttttt ctgttcatcc
 480
 attttccttt tccctgtttc tgtatcctct ggtaacagct tgtggatttg atcttcagag
 540
 ggtttttctt cttgtaactt ttcttctctc agctttctca agctt
 585

<210> 2682
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 2682
 Met Asp Glu Gln Lys Lys Arg Asp Glu Pro Leu Val Leu Lys Thr Asn
 1 5 10 15
 Leu Glu Arg Cys Pro Ala Arg Leu Ser Asp Ser Glu Asn Glu Glu Pro
 20 25 30
 Ser Arg Gly Gln Met Thr Gln Thr His Arg Ser Ala Phe Val Ser Lys

```

          35          40          45
Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
   50          55          60
Val Glu Arg Ser Gln Ser Cys Ser Asp Thr Ala Gln Glu Arg Ala Lys
   65          70          75          80
Ser Arg Val Arg Ala Val Pro Gly Asn Lys Ala Lys Val His Leu Ser
          85          90          95
His Arg Pro Pro Gly Leu Val Arg Leu Ala Pro Ser Pro Pro Leu His
          100          105          110
Met Val Met Lys
          115

```

<210> 2683

<211> 498

<212> DNA

<213> Homo sapiens

<400> 2683

```

nacgcgttac actgactcca aaactctcct tggatggccta ggtgaaacct catggccaac
60
atcacctgga tggccaacca cactggaagg ttggatttca tcctcatggg actcttcaga
120
cgatccaaac atccagctct acttagtgtg gtcattcttg tggttttcct gatggcggtg
180
tctgaaaatg ctgtcctgat ccttctgata cactgtgaca cctacctcca cacccecatg
240
tactttttca tcagtcaatt gtctctcatg gacatggcgt acatttctgt cactgtgccc
300
aagatgctcc tggaccaggt catgggtgtg aataagatct cagcccctga gtgtgggatg
360
cagatgttcc tctatctgac actagcaggt tcggaatttt tccttctagc caccatggcc
420
tatgaccgct acgtggccat ctgccatcct ctccgttacc ctgtcctcat gaaccatagg
480
gtctgtcttt tcctggca
498

```

<210> 2684

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2684

```

Met Ala Asn Ile Thr Trp Met Ala Asn His Thr Gly Arg Leu Asp Phe
   1           5           10           15
Ile Leu Met Gly Leu Phe Arg Arg Ser Lys His Pro Ala Leu Leu Ser
          20          25          30
Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
          35          40          45
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
          50          55          60
Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
   65          70          75          80
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile

```

				85					90					95					
Ser	Ala	Pro	Glu	Cys	Gly	Met	Gln	Met	Phe	Leu	Tyr	Leu	Thr	Leu	Ala				
			100					105						110					
Gly	Ser	Glu	Phe	Phe	Leu	Leu	Ala	Thr	Met	Ala	Tyr	Asp	Arg	Tyr	Val				
		115					120					125							
Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Pro	Val	Leu	Met	Asn	His	Arg	Val				
	130					135					140								
Cys	Leu	Phe	Leu	Ala															
145																			

<210> 2685

<211> 391

<212> DNA

<213> Homo sapiens

<400> 2685

```

ngccggtgc acacgctgcc acctgggctg cctcgaaatg tccatgtgct gaaggtcaag
60
cgcaatgagc tggctgccct ggcacgaggg gcgctggcgg gcatggctca gcttcgggaa
120
ctctacctca caggcaaccg actgcgaagc cgggccctgg gccccgtgc ctgggtggac
180
ctcgcccatc tgcagttgct ggacatcgcc gggaatcagc tcacagagat cccggagggg
240
ctcccccat cgctggagta tctgtacctg cagaataaca agattagcgc tgttctgcc
300
agcgctttg actctactcc caacctcaag gggatctttc tcaggttcaa caagctggct
360
gtgggctccg tagtagaaag cgccttcgg a
391

```

<210> 2686

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2686

Xaa	Arg	Leu	His	Thr	Leu	Pro	Pro	Gly	Leu	Pro	Arg	Asn	Val	His	Val				
1				5				10					15						
Leu	Lys	Val	Lys	Arg	Asn	Glu	Leu	Ala	Ala	Leu	Ala	Arg	Gly	Ala	Leu				
		20						25				30							
Ala	Gly	Met	Ala	Gln	Leu	Arg	Glu	Leu	Tyr	Leu	Thr	Gly	Asn	Arg	Leu				
	35					40					45								
Arg	Ser	Arg	Ala	Leu	Gly	Pro	Arg	Ala	Trp	Val	Asp	Leu	Ala	His	Leu				
	50				55					60									
Gln	Leu	Leu	Asp	Ile	Ala	Gly	Asn	Gln	Leu	Thr	Glu	Ile	Pro	Glu	Gly				
65				70					75				80						
Leu	Pro	Pro	Ser	Leu	Glu	Tyr	Leu	Tyr	Leu	Gln	Asn	Asn	Lys	Ile	Ser				
			85				90					95							
Ala	Val	Pro	Ala	Ser	Ala	Phe	Asp	Ser	Thr	Pro	Asn	Leu	Lys	Gly	Ile				
		100					105					110							
Phe	Leu	Arg	Phe	Asn	Lys	Leu	Ala	Val	Gly	Ser	Val	Val	Glu	Ser	Ala				
	115					120						125							
Phe	Arg																		

130

<210> 2687
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 2687
 nagtgcaaga aatgtttaat acaagagatt gaaccctacc aaaatgggag gtttagcctc
 60
 caggaatggg agtgcaataa atctctaata caagagattg agcctcacca acctccagga
 120
 tgggaaatga caggtaagac agggactaca aaagaccaag cagacaataa aattccccct
 180
 gacagtccgc taggccttat gttaagatac cggaaagata atgaaaggac caaacacaag
 240
 aaaagacagc aaatgataaa atattgctgg tttatttgga ctaaggaacc catcctgaaa
 300
 cctttggtct tttggccaca gttaggggtg agcggggact ggatatgcca actcctaac
 360
 cagtatgtaa aggataaaaag tccagtttct caagaggag
 399

<210> 2688
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2688
 Met Thr Gly Lys Thr Gly Thr Thr Lys Asp Gln Ala Asp Asn Lys Ile
 1 5 10 15
 Pro Pro Asp Ser Pro Leu Gly Leu Met Leu Arg Tyr Arg Lys Asp Asn
 20 25 30
 Glu Arg Thr Lys His Lys Lys Arg Gln Gln Met Ile Lys Tyr Cys Trp
 35 40 45
 Phe Ile Trp Thr Lys Glu Pro Ile Leu Lys Pro Leu Val Phe Trp Pro
 50 55 60
 Gln Leu Gly Leu Ser Gly Asp Trp Ile Cys Gln Leu Leu Ile Gln Tyr
 65 70 75 80
 Val Lys Asp Lys Ser Pro Val Ser Gln Glu Glu
 85 90

<210> 2689
 <211> 560
 <212> DNA
 <213> Homo sapiens

<400> 2689
 gcacccattc aagttgggtt agttggcttc tgtttggtgt ttgctacacc cctgtgttgt
 60
 gccctgtttc ctcagaaaag atacaaaaat gtgggtctca ccaagttgcc caggctggtc
 120
 tcaaaactcct ggcctcaaga aatcctcctg gttcagcctc acaaagctcc gagattacag
 180

ttgcatgtct gtgacaagct tggaggccga gttgcaagct aagatccaag agagccatcc
 240
 tgaattgcga cgcgtgtact tcaataaggg attgtaaagc agggaggaaa cctctgcagc
 300
 tcattctgcc actgcaaagc tgggtgtagcc atgctgggtga gaaaaatcct gttcaacctg
 360
 ggttggtata tcgtctttga aaaacaatga ctataaaagc tacaggaaag gtatttcagg
 420
 acgtttattg aaggcattgg tggagctctc tgtatgtgtt ttgctctgca gggaaactcaa
 480
 agttggcatt cccgtcacgg atgagaatgg gaaccgcttg ggggagtcgg cgaacgctgc
 540
 gaaacaagcc atcacgccag
 560

<210> 2690

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2690

Ala	Pro	Ile	Gln	Val	Gly	Leu	Val	Gly	Phe	Cys	Leu	Val	Phe	Ala	Thr
1				5					10					15	
Pro	Leu	Cys	Cys	Ala	Leu	Phe	Pro	Gln	Lys	Arg	Tyr	Lys	Asn	Val	Gly
			20					25					30		
Leu	Thr	Lys	Leu	Pro	Arg	Leu	Val	Ser	Asn	Ser	Trp	Pro	Gln	Glu	Ile
		35					40					45			
Leu	Leu	Val	Gln	Pro	His	Lys	Ala	Pro	Arg	Leu	Gln	Leu	His	Val	Cys
	50					55					60				
Asp	Lys	Leu	Gly	Gly	Arg	Val	Ala	Ser							
65						70									

<210> 2691

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2691

gatctcatct gtacacactt catggatggc atgaatgagc tggcgattgc ttacatcctg
 60
 cagggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc
 120
 aaagccagcc acatcctgat ctctgtggat gggaaggtct acctgtctgg tttgcgcagc
 180
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac
 240
 agtgtcaagg ttctgccgtg gtcagcccc gaggtcctcc agcagaatct ccagggttat
 300
 gatgccaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat
 360
 gtccccctta aggatatgcc tgccaccag atgctgctag agaaactgaa cggcacagtg
 420
 ccctgcctgt tggataccag caccatcccc gctgaggagc tgacatgag cccttcgcgc
 480

tcagtggcca actctggcct gactgacagc ctgaccacca gcacaccccg gg
532

<210> 2692

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2692

Asp	Leu	Ile	Cys	Thr	His	Phe	Met	Asp	Gly	Met	Asn	Glu	Leu	Ala	Ile
1				5					10					15	
Ala	Tyr	Ile	Leu	Gln	Gly	Val	Leu	Lys	Ala	Leu	Asp	Tyr	Ile	His	His
			20					25					30		
Met	Gly	Tyr	Val	His	Arg	Ser	Val	Lys	Ala	Ser	His	Ile	Leu	Ile	Ser
		35					40					45			
Val	Asp	Gly	Lys	Val	Tyr	Leu	Ser	Gly	Leu	Arg	Ser	Asn	Leu	Ser	Met
	50					55					60				
Ile	Ser	His	Gly	Gln	Arg	Gln	Arg	Val	Val	His	Asp	Phe	Pro	Lys	Tyr
65					70					75				80	
Ser	Val	Lys	Val	Leu	Pro	Trp	Leu	Ser	Pro	Glu	Val	Leu	Gln	Gln	Asn
			85						90					95	
Leu	Gln	Gly	Tyr	Asp	Ala	Lys	Ser	Asp	Ile	Tyr	Ser	Val	Gly	Ile	Thr
			100					105					110		
Ala	Cys	Glu	Leu	Ala	Asn	Gly	His	Val	Pro	Phe	Lys	Asp	Met	Pro	Ala
		115					120					125			
Thr	Gln	Met	Leu	Leu	Glu	Lys	Leu	Asn	Gly	Thr	Val	Pro	Cys	Leu	Leu
	130					135					140				
Asp	Thr	Ser	Thr	Ile	Pro	Ala	Glu	Glu	Leu	Thr	Met	Ser	Pro	Ser	Arg
145					150					155				160	
Ser	Val	Ala	Asn	Ser	Gly	Leu	Ser	Asp	Ser	Leu	Thr	Thr	Ser	Thr	Pro
			165					170						175	

Arg

<210> 2693

<211> 798

<212> DNA

<213> Homo sapiens

<400> 2693

gcgttccaga atctcaccag ccttgtggtg ctgcatttgc ataacaaccg catccagcat
60
ctgggggaccc acagcttcga ggggctgcac aatctggaga cactagacct gaattataac
120
aagctgcagg agttccctgt ggccatccgg accctgggca gactgcagga actgggggttc
180
cataacaaca acatcaaggc catcccagaa aaggccttca tggggaaccc tctgctacag
240
acgatacact tttatgataa cccaatccag tttgtgggaa gatcggcatt ccagtacctg
300
cctaaactcc acacactatc tctgaatggt gccatggaca tccaggagtt tccagatctc
360
aaaggcacca ccagcctgga gacctgacc ctgaccgcg caggcatccg gctgctccca
420

tcggggatgt gccaacagct gccaggctc cgagtctctg aactgtctca caatcaaatt
 480
 gaggagctgc ccagcctgca caggtgtcag aaattggagg aaatcggcct ccaacacaac
 540
 cgcattctggg aaattggagc tgacaccttc agccagctga gctccctgca agccctggat
 600
 ttaaggtgga acgccatccg gtccatccac cccgaggcct tctccaccct gcactccctg
 660
 gtcaagctgg acctgacaga caaccagctg accacactgc ccctggctgg acttgggggc
 720
 ttgatgcata tgaagctcaa agggaaacctt gctctctccc aggccttctc caaggacagt
 780
 ttcccaaaac tgaggatc
 798

<210> 2694

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2694

Ala	Phe	Gln	Asn	Leu	Thr	Ser	Leu	Val	Val	Leu	His	Leu	His	Asn	Asn
1			5					10						15	
Arg	Ile	Gln	His	Leu	Gly	Thr	His	Ser	Phe	Glu	Gly	Leu	His	Asn	Leu
		20					25					30			
Glu	Thr	Leu	Asp	Leu	Asn	Tyr	Asn	Lys	Leu	Gln	Glu	Phe	Pro	Val	Ala
	35					40				45					
Ile	Arg	Thr	Leu	Gly	Arg	Leu	Gln	Glu	Leu	Gly	Phe	His	Asn	Asn	Asn
	50				55					60					
Ile	Lys	Ala	Ile	Pro	Glu	Lys	Ala	Phe	Met	Gly	Asn	Pro	Leu	Leu	Gln
65				70					75					80	
Thr	Ile	His	Phe	Tyr	Asp	Asn	Pro	Ile	Gln	Phe	Val	Gly	Arg	Ser	Ala
			85				90						95		
Phe	Gln	Tyr	Leu	Pro	Lys	Leu	His	Thr	Leu	Ser	Leu	Asn	Gly	Ala	Met
			100				105						110		
Asp	Ile	Gln	Glu	Phe	Pro	Asp	Leu	Lys	Gly	Thr	Thr	Ser	Leu	Glu	Ile
		115					120					125			
Leu	Thr	Leu	Thr	Arg	Ala	Gly	Ile	Arg	Leu	Leu	Pro	Ser	Gly	Met	Cys
	130					135					140				
Gln	Gln	Leu	Pro	Arg	Leu	Arg	Val	Leu	Glu	Leu	Ser	His	Asn	Gln	Ile
145				150					155					160	
Glu	Glu	Leu	Pro	Ser	Leu	His	Arg	Cys	Gln	Lys	Leu	Glu	Glu	Ile	Gly
			165					170						175	
Leu	Gln	His	Asn	Arg	Ile	Trp	Glu	Ile	Gly	Ala	Asp	Thr	Phe	Ser	Gln
		180					185					190			
Leu	Ser	Ser	Leu	Gln	Ala	Leu	Asp	Leu	Arg	Trp	Asn	Ala	Ile	Arg	Ser
		195					200					205			
Ile	His	Pro	Glu	Ala	Phe	Ser	Thr	Leu	His	Ser	Leu	Val	Lys	Leu	Asp
	210					215						220			
Leu	Thr	Asp	Asn	Gln	Leu	Thr	Thr	Leu	Pro	Leu	Ala	Gly	Leu	Gly	Gly
225				230					235					240	
Leu	Met	His	Leu	Lys	Leu	Lys	Gly	Asn	Leu	Ala	Leu	Ser	Gln	Ala	Phe
			245					250						255	
Ser	Lys	Asp	Ser	Phe	Pro	Lys	Leu	Arg	Ile						

260

265

<210> 2695

<211> 2265

<212> DNA

<213> Homo sapiens

<400> 2695

nagccagagg gacgagctag cccgacgatg gcccagggga cattgatccg tgtgaccca
60
gagcagccca cccatgccgt gtgtgtgctg ggcacctga ctcagcttga catctgcagc
120
tctgccccctg aggactgcac gtccttcagc atcaacgcct ccccaggggt ggtcgtggat
180
attgcccaca gccctccagc caagaagaaa tccacagggt cctccacatg gccctggac
240
cctggggtag aggtgacct gacgatgaaa gcggccagt gtagcacagg cgaccagaag
300
gttcagattt catactacgg acccaagact ccaccagtca aagctctact ctacctcacc
360
gcggtggaaa tctccctgtg cgcagacatc acccgcaccc gcaaagtga gcccaaccaga
420
gctgtgaaag atcagaggac ctggacctgg ggcccttgtg gacaggggtgc catcctgctg
480
gtgaactgtg acagagacaa tctcgaatct tctgccatgg actgagagga tgatgaagtg
540
cttgacagcg aagacctgca ggacatgtcg ctgatgacct tgagcacgaa gacccccaa
600
gactttcttca caaaccatac actggtgctc cacgtggcca ggtctgagat ggacaaagt
660
agggtgtttc aggccacacg gggcaactg tcctccaagt gcagcgtagt cttgggtccc
720
aagtggccct ctactacct gatggtcccc ggtggaaagc acaacatgga cttctacgtg
780
gaggccctcg ctttcccgga caccgacttc ccggggctca ttacctcac catctccctg
840
ctggacacgt ccaacctgga gctccccgag gctgtggtgt tccaagacag cgtggtcttc
900
cgcgtggcgc cctggatcat gacccccaac acccagcccc cgcaggaggt gtacgcgtgc
960
agtatttttg aaaatgagga cttcctgaag tcagtgacta ctctggccat gaaagccaag
1020
tgcaagctga ccactctgcc tgaggaggag aacatggatg accagtggat gcaggatgaa
1080
atggagatcg gctacatcca agccccacac aaaacgctgc ccgtggtctt cgactctcca
1140
aggaacagag gcctgaagga gtttcccatc aaacgagtga tgggtccaga ttttggtat
1200
gtaactcgag ggccccaaac agggggtatc agtggactgg actccttttg gaacctggaa
1260
gtgagcccc cagtcacagt caggggcaag gaataccgc tgggcaggat tctcttcggg
1320
gacagctgtt atcccagcaa tgacagccgg cagatgcacc aggcctgca ggacttcctc
1380

agtgcacagc aggtgcaggc ccctgtgaag ctctattctg actggctgtc cgtgggcca
 1440
 gtggacgagt tectgagctt tgtgccagca cccgacagga agggcttccg gctgctcctg
 1500
 gccagcccca ggtcctgcta caaactgttc caggagcagc agaatgaggg ccacggggag
 1560
 gccctgctgt tcgaagggat caagaaaaaa aaacagcaga aaataaagaa cattctgtca
 1620
 aacaagacat tgagagaaca taattcattt gtggagagat gcatcgactg gaaccgagag
 1680
 ctgctgaagc gggagctggg cctggccgag agtgacatca ttgacatccc gcagctcttc
 1740
 aagctcaaag agttctctaa ggcggaagct tttttcccca acatggtgaa catgctggtg
 1800
 ctagggaagc acctgggcat cccaagccc ttggggcccg tcatcaacgg ccgctgctgc
 1860
 ctggaggaga aggtgtgttc cctgctggag ccaactgggc tccagtgcac cttcatcaac
 1920
 gacttcttca cctaccacat caggcatggg gaggtgcact gcggcaccaa cgtgagcaga
 1980
 aagcccttct ccttcaagtg gtggaacatg gtgccctgag cccatcttcc ctggcgtcct
 2040
 ctccctcctg gccagatgtc gctgggtcct ctgcagtgtg gcaagcaaga gctcttgtga
 2100
 atattgtggc tcctgggggg cggccagccc tccagcaggt ggcttgcttt cttctcctgt
 2160
 gatgtcccag tttccactc tgaagatccc aacatgggtcc tagcactgca cactcagttc
 2220
 tgctctaaga agctgcaata aagttttttt aagtcacttt gtaca
 2265

<210> 2696

<211> 663

<212> PRT

<213> Homo sapiens

<400> 2696

Met	Ala	Gln	Gly	Thr	Leu	Ile	Arg	Val	Thr	Pro	Glu	Gln	Pro	Thr	His
1				5					10					15	
Ala	Val	Cys	Val	Leu	Gly	Thr	Leu	Thr	Gln	Leu	Asp	Ile	Cys	Ser	Ser
			20					25					30		
Ala	Pro	Glu	Asp	Cys	Thr	Ser	Phe	Ser	Ile	Asn	Ala	Ser	Pro	Gly	Val
		35					40					45			
Val	Val	Asp	Ile	Ala	His	Ser	Pro	Pro	Ala	Lys	Lys	Lys	Ser	Thr	Gly
	50					55					60				
Ser	Ser	Thr	Trp	Pro	Leu	Asp	Pro	Gly	Val	Glu	Val	Thr	Leu	Thr	Met
65					70					75					80
Lys	Ala	Ala	Ser	Gly	Ser	Thr	Gly	Asp	Gln	Lys	Val	Gln	Ile	Ser	Tyr
				85				90					95		
Tyr	Gly	Pro	Lys	Thr	Pro	Pro	Val	Lys	Ala	Leu	Leu	Tyr	Leu	Thr	Ala
			100					105					110		
Val	Glu	Ile	Ser	Leu	Cys	Ala	Asp	Ile	Thr	Arg	Thr	Gly	Lys	Val	Lys
			115				120					125			
Pro	Thr	Arg	Ala	Val	Lys	Asp	Gln	Arg	Thr	Trp	Thr	Trp	Gly	Pro	Cys

130		135		140
Gly Gln Gly Ala Ile Leu Leu Val Asn Cys Asp Arg Asp Asn Leu Glu				
145		150		155
Ser Ser Ala Met Asp Cys Glu Asp Asp Glu Val Leu Asp Ser Glu Asp				
	165		170	175
Leu Gln Asp Met Ser Leu Met Thr Leu Ser Thr Lys Thr Pro Lys Asp				
	180		185	190
Phe Phe Thr Asn His Thr Leu Val Leu His Val Ala Arg Ser Glu Met				
	195		200	205
Asp Lys Val Arg Val Phe Gln Ala Thr Arg Gly Lys Leu Ser Ser Lys				
	210		215	220
Cys Ser Val Val Leu Gly Pro Lys Trp Pro Ser His Tyr Leu Met Val				
225		230		235
Pro Gly Gly Lys His Asn Met Asp Phe Tyr Val Glu Ala Leu Ala Phe				
	245		250	255
Pro Asp Thr Asp Phe Pro Gly Leu Ile Thr Leu Thr Ile Ser Leu Leu				
	260		265	270
Asp Thr Ser Asn Leu Glu Leu Pro Glu Ala Val Val Phe Gln Asp Ser				
	275		280	285
Val Val Phe Arg Val Ala Pro Trp Ile Met Thr Pro Asn Thr Gln Pro				
	290		295	300
Pro Gln Glu Val Tyr Ala Cys Ser Ile Phe Glu Asn Glu Asp Phe Leu				
305		310		315
Lys Ser Val Thr Thr Leu Ala Met Lys Ala Lys Cys Lys Leu Thr Ile				
	325		330	335
Cys Pro Glu Glu Glu Asn Met Asp Asp Gln Trp Met Gln Asp Glu Met				
	340		345	350
Glu Ile Gly Tyr Ile Gln Ala Pro His Lys Thr Leu Pro Val Val Phe				
	355		360	365
Asp Ser Pro Arg Asn Arg Gly Leu Lys Glu Phe Pro Ile Lys Arg Val				
	370		375	380
Met Gly Pro Asp Phe Gly Tyr Val Thr Arg Gly Pro Gln Thr Gly Gly				
385		390		395
Ile Ser Gly Leu Asp Ser Phe Gly Asn Leu Glu Val Ser Pro Pro Val				
	405		410	415
Thr Val Arg Gly Lys Glu Tyr Pro Leu Gly Arg Ile Leu Phe Gly Asp				
	420		425	430
Ser Cys Tyr Pro Ser Asn Asp Ser Arg Gln Met His Gln Ala Leu Gln				
	435		440	445
Asp Phe Leu Ser Ala Gln Gln Val Gln Ala Pro Val Lys Leu Tyr Ser				
	450		455	460
Asp Trp Leu Ser Val Gly His Val Asp Glu Phe Leu Ser Phe Val Pro				
465		470		475
Ala Pro Asp Arg Lys Gly Phe Arg Leu Leu Ala Ser Pro Arg Ser				
	485		490	495
Cys Tyr Lys Leu Phe Gln Glu Gln Gln Asn Glu Gly His Gly Glu Ala				
	500		505	510
Leu Leu Phe Glu Gly Ile Lys Lys Lys Lys Gln Gln Lys Ile Lys Asn				
	515		520	525
Ile Leu Ser Asn Lys Thr Leu Arg Glu His Asn Ser Phe Val Glu Arg				
	530		535	540
Cys Ile Asp Trp Asn Arg Glu Leu Leu Lys Arg Glu Leu Gly Leu Ala				
545		550		555
Glu Ser Asp Ile Ile Asp Ile Pro Gln Leu Phe Lys Leu Lys Glu Phe				

[illegible]

```
<210> 2697
<211> 2468
<212> DNA
<213> Homo sapiens
```

```

<400> 2697
cagggcagcc cgggggaagc gtcggggacc atgtctggag aactaccacc aaacattaac
60
atcaaggaac ctcgatggga tcaaagcact ttcattggac gagccaatca tttcttcact
120
gtaactgacc ccaggaacat tctgttaacc aacgaacaac tcgagagtgc gagaaaaata
180
gtacatgatt acaggcaagg aattgttcct cctgggtctta cagaaaatga attgtggaga
240
gcaaagtaca tctatgattc agcttttcat cctgacactg gtgagaagat gattttgata
300
ggaagaatgt cagcccaggt tcccatgaac atgaccatca caggttgtat gatgacgttt
360
tacaggacta cgccggctgt gctgttctgg cagtggatta accagtcctt caatgccgtc
420
gtcaattaca ccaacagaag tggagacgca cccctcactg tcaatgagtt gggaacagct
480
tacgtttctg caacaactgg tgccgtagca acagctctag gactcaatgc attgaccaag
540
catgtctcac cactgatagg acgttttgtt ccctttgctg ccgtagctgc tgctaattgc
600
attaatattc cattaatgag gcaaagggaa ctcaaagttg gcattcccgt cacggatgag
660
aatgggaacc gcttggggga gtcggcgaac gctgcgaaac aagccatcac gcaagttgtc
720
gtgtccagga ttctcatggc agcccctggc atggccatcc ctccattcat tatgaacact
780
ttggaaaaga aagccttttt gaagaggttc ccatggatga gtgcacccat tcaagttggg
840
ttagttggct tctgtttggt gtttgctaca cccctgtgtt gtgcctgtt tcctcagaaa
900
agtcccatgt ctgtgacaag cttggaggcc gagttgcaag ctaagatcca agagagccat
960
cctgaattgc gacgcgtgta cttcaataag ggattgtaaa gcagggagga aacctctgca
1020

```


gctcattctg ccactgcaaa gctggtgtag ccattgctggg gagaaaaatc ctgttcaacc
1080
tgggtttctcc cagttacgga aaccttttta agatccacat tagcctttta gaataaagct
1140
gctactttta cagagcacct ggcgtgggccc aagtgcctga tactccctta cactgaatca
1200
tgttatgatt tatagaaata cctttcctgt agcttttata gtcattgttt ttcaaagacg
1260
atataccagc cctcaccag gttttaaaaa agcactggta ggcatagaat aggtgctcag
1320
tatatgggtca gtaaagtgtc tattgattat caatcagtga aaaaagaaat ctgtttaaaa
1380
tactgaattt tcatctcact cccattgcaa atcaaggaga tctcagcagt gaactgggaa
1440
aatacaaaag ctctgggcta atctataaaa acttacctg aaatattaag ggcagtttgc
1500
ttctagtttg gggattgctc tagcccaatg aagggtgatga agcttttgga ttggagggt
1560
aaaagctcct tcacaccct tccaaaagtc agtcacagac cactgcaaca tgcttccct
1620
gctggatcat tatatacatt cagattgtga gtggattgcc ttggttgact ttaatttat
1680
tgttttttgt tcttataaag atgataatct taccttgagc ttattgactt tatattcaat
1740
tatttacatc aaataatgaa ataactgaaa tgtacaaatg tcaaattttg gaagtataat
1800
caataccaat gctgtatgag tgggctgaat ccagttcatt gtgttttttt ttggttaagaa
1860
gtgagactac agttccagct acctacatgt cttttcttgt catccttata gatctctttg
1920
gctttcagaa agatacagt ataagtgtg tatgaatcag tcacaatgaa tttacttga
1980
atattgtatg ttgcattcca cttcatttga aaataatgaa accatgtacc actgtttaca
2040
tcatctgtag tgatttcata gataatatat ttaatatgac agattatgtt tcaactctgt
2100
agatgtttta cgtcatagac agtcggccct ctgtatccgt gagctctata tctgtgaatt
2160
caaccaagtt tggatgggaa aatttttttt ttttttttga gacggagtct cgctctgtca
2220
cccaggctgg agtgcagtgg cgtagtctcg gctcactgca agctccgcct cccgggttca
2280
cgccgttctc ctgectcagc cctctgaga agctgggact acaggcgccc gccaccacgc
2340
ccggctaatt tttttgtatt tttagtagag acggggtttc actgtggtct cgatctctgt
2400
acctcgtgat ccgcccgcct tggcctccca aggtgctggg attgcaggcg tgagccaccg
2460
caccggg
2468

<210> 2698

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2698

Gln Gly Ser Pro Gly Glu Ala Ser Gly Thr Met Ser Gly Glu Leu Pro
 1 5 10 15
 Pro Asn Ile Asn Ile Lys Glu Pro Arg Trp Asp Gln Ser Thr Phe Ile
 20 25 30
 Gly Arg Ala Asn His Phe Phe Thr Val Thr Asp Pro Arg Asn Ile Leu
 35 40 45
 Leu Thr Asn Glu Gln Leu Glu Ser Ala Arg Lys Ile Val His Asp Tyr
 50 55 60
 Arg Gln Gly Ile Val Pro Pro Gly Leu Thr Glu Asn Glu Leu Trp Arg
 65 70 75 80
 Ala Lys Tyr Ile Tyr Asp Ser Ala Phe His Pro Asp Thr Gly Glu Lys
 85 90 95
 Met Ile Leu Ile Glu Arg Met Ser Ala Gln Val Pro Met Asn Met Thr
 100 105 110
 Ile Thr Gly Cys Met Met Thr Phe Tyr Arg Thr Thr Pro Ala Val Leu
 115 120 125
 Phe Trp Gln Trp Ile Asn Gln Ser Phe Asn Ala Val Val Asn Tyr Thr
 130 135 140
 Asn Arg Ser Gly Asp Ala Pro Leu Thr Val Asn Glu Leu Gly Thr Ala
 145 150 155 160
 Tyr Val Ser Ala Thr Thr Gly Ala Val Ala Thr Ala Leu Gly Leu Asn
 165 170 175
 Ala Leu Thr Lys His Val Ser Pro Leu Ile Gly Arg Phe Val Pro Phe
 180 185 190
 Ala Ala Val Ala Ala Ala Asn Cys Ile Asn Ile Pro Leu Met Arg Gln
 195 200 205
 Arg Glu Leu Lys Val Gly Ile Pro Val Thr Asp Glu Asn Gly Asn Arg
 210 215 220
 Leu Gly Glu Ser Ala Asn Ala Ala Lys Gln Ala Ile Thr Gln Val Val
 225 230 235 240
 Val Ser Arg Ile Leu Met Ala Ala Pro Gly Met Ala Ile Pro Pro Phe
 245 250 255
 Ile Met Asn Thr Leu Glu Lys Lys Ala Phe Leu Lys Arg Phe Pro Trp
 260 265 270
 Met Ser Ala Pro Ile Gln Val Gly Leu Val Gly Phe Cys Leu Val Phe
 275 280 285
 Ala Thr Pro Leu Cys Cys Ala Leu Phe Pro Gln Lys Ser Ser Met Ser
 290 295 300
 Val Thr Ser Leu Glu Ala Glu Leu Gln Ala Lys Ile Gln Glu Ser His
 305 310 315 320
 Pro Glu Leu Arg Arg Val Tyr Phe Asn Lys Gly Leu
 325 330

<210> 2699

<211> 974

<212> DNA

<213> Homo sapiens

<400> 2699

gaagcccgcg gaggagcggg taagagcccc gcgaatccgg ccccaacctc gggaacggga
 60

tgggaggcgg ccctggccgc aagccccgcg ctgctagcgg gtccaccgcg tcgtagccga
 120
 cagccgccct tcttcctcgc agcgcgccgc gattcaccag cctggtcctt tctgcggaga
 180
 gcgatgccgc ttcccgacac catgttctgc gctcagcaga tccacattcc cccggagctg
 240
 cgggacatcc tgaagcaatt caccaagget gccatccgca cccagccggc cgacgtgctg
 300
 cggtggtcgg cagggatattt ttcagctctg tcgagaggag atccacttcc tgtaaaggac
 360
 agaatggaaa tgctgtggc aaccagaaa acagacacag gctgactca aggactcctg
 420
 aaagttttgc acaagcagtg tcaccacaag cggatatgtg aattaacaga tcttgagcag
 480
 aagtgaaga acttgtgcct gccgaaggaa aaattcaaag cgctcttaca actggatcct
 540
 tgtgaaaaca aaatcaagtg gataaacttt ttagcgcttg gatgcagcat gcttggtggg
 600
 tccttgaaca ctgcgctgaa gcacctgtgc gagatcctca cggacgatcc ggaggcgggc
 660
 ccgctcgcat ccccttcaag acgttttctt acgtttaccg ctacttggcc agattagact
 720
 cagatgtgtc tcccttgagg acggaatcct accttgcttc tctaaaggaa aatatagacg
 780
 ccaggaagaa cggcatgata ggtctttcag atttcttctt tccaaagagg aaacttttag
 840
 aaagcattga aaactctgaa gatgtaggcc attaatacag agaagaatac attttaatgt
 900
 caaaatagtg ctctttaaaa ttctggcacc aaatacaact taccctgaat cacaaaaaaa
 960
 aaaaaaaaaa aaaa
 974

<210> 2700

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2700

Met	Pro	Leu	Pro	Asp	Thr	Met	Phe	Cys	Ala	Gln	Gln	Ile	His	Ile	Pro
1				5					10					15	
Pro	Glu	Leu	Pro	Asp	Ile	Leu	Lys	Gln	Phe	Thr	Lys	Ala	Ala	Ile	Arg
			20					25					30		
Thr	Gln	Pro	Ala	Asp	Val	Leu	Arg	Trp	Ser	Ala	Gly	Tyr	Phe	Ser	Ala
		35				40					45				
Leu	Ser	Arg	Gly	Asp	Pro	Leu	Pro	Val	Lys	Asp	Arg	Met	Glu	Met	Pro
	50					55					60				
Val	Ala	Thr	Gln	Lys	Thr	Asp	Thr	Gly	Leu	Thr	Gln	Gly	Leu	Leu	Lys
65					70				75					80	
Val	Leu	His	Lys	Gln	Cys	His	His	Lys	Arg	Tyr	Val	Glu	Leu	Thr	Asp
			85					90						95	
Leu	Glu	Gln	Lys	Trp	Lys	Asn	Leu	Cys	Leu	Pro	Lys	Glu	Lys	Phe	Lys
		100						105					110		
Ala	Leu	Leu	Gln	Leu	Asp	Pro	Cys	Glu	Asn	Lys	Ile	Lys	Trp	Ile	Asn

115 120 125
 Phe Leu Ala Leu Gly Cys Ser Met Leu Gly Gly Ser Leu Asn Thr Ala
 130 135 140
 Leu Lys His Leu Cys Glu Ile Leu Thr Asp Asp Pro Glu Ala Gly Pro
 145 150 155 160
 Leu Ala Ser Pro Ser Arg Arg Phe Pro Thr Phe Thr Ala Thr Trp Pro
 165 170 175
 Asp

<210> 2701
 <211> 646
 <212> DNA
 <213> Homo sapiens

<400> 2701
 ncccaaggtg gaggaaggcc tgcgagaagg acagtaagag atgctgagaa caggaaaaca
 60
 aaatcagctt tgacctgaag agtctacagt ccagttgaga agacagtcca ggacacacgt
 120
 agcacactga gaggatgatt taagaaaaac tggctgggca cgggtgtcca tgcctgtaat
 180
 cccagcactt tgggaggcca aaatgccagc agctcttcct tgccagagat gatctgaccc
 240
 ggtgggggca gctggaaagc aacactggcc cccagctgaa gggcccagct gcagccagac
 300
 agatgggtgct tgagaaccga ggcccgggtga tcctccagcc acagtccagc ccaaccactg
 360
 ccactttcca tgggacttag aacttcggag ttgctgcctt gcaattggag gaaggacctg
 420
 gggcccggag accaggagag ccgctggaag cagtacctgg aggacgagag gatcgcgctt
 480
 ttctgcaga acgaggagtt catgaaggaa ctgcaacgga accgcgactt cctcctcgct
 540
 ctggagagag atcgattgaa atacgaatcc cagaaatcta aatccagcag cgtggctgtc
 600
 ggaaacgact ttggcttttc ctctcctgtc ccaggaactg gcgacg
 646

<210> 2702
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 2702
 Met Gly Leu Arg Thr Ser Glu Leu Leu Pro Cys Asn Trp Arg Lys Asp
 1 5 10 15
 Leu Gly Pro Gly Asp Gln Glu Ser Arg Trp Lys Gln Tyr Leu Glu Asp
 20 25 30
 Glu Arg Ile Ala Leu Phe Leu Gln Asn Glu Glu Phe Met Lys Glu Leu
 35 40 45
 Gln Arg Asn Arg Asp Phe Leu Ala Leu Glu Arg Asp Arg Leu Lys
 50 55 60
 Tyr Glu Ser Gln Lys Ser Lys Ser Ser Val Ala Val Gly Asn Asp

65 70 75
Phe Gly Phe Ser Ser Pro Val Pro Gly Thr Gly Asp
 85 90

```
<210> 2703
<211> 610
<212> DNA
<213> Homo sapiens
```

```

<400> 2703
gaagacatgg gcaaaagcat cccccaatac ctggggcaac tggacatccg caaaagcgta
60
gtcagccttg ccacaggcgc cggggcgatc tacctgctct acaaggccat caaggctggc
120
ataaaatgca aaccacccct ctgtagcaac tcacccatct gcatcgcccg tgaatgttcg
180
ggcccttggg gaaaagggt cttgccccca gaaggaacct tgctcccaag gcctttgctg
240
ggggaggggc ccaaagggga ggccccaag ttccctcttt tctttgatct ttctcttgtc
300
catcttcctc aagcccaccc tgcagcgtcc taggcaaggc cctgccagag atgctagctc
360
agggtccttg gatctcactc aagtggatcc tcagactcat ctggcaggtc tccaaatact
420
acatttcctc tggctcccag gattccactt cttggaaact tgggtgcggc agctcccccc
480
atcccttttc tgccctagga acgtgaggct ttaaggaaag ggaagattgg aggacttact
540
atatgcccag agcttccact agtccacatg ttcttttgtg cagagtagga aaatgagccc
600
cttcacgcgt
610

```

```
<210> 2704
<211> 108
<212> PRT
<213> Homo sapiens
```

```

<400> 2704
Met Gly Lys Ser Ile Pro Gln Tyr Leu Gly Gln Leu Asp Ile Arg Lys
  1              5              10              15
Ser Val Val Ser Leu Ala Thr Gly Ala Gly Ala Ile Tyr Leu Leu Tyr
      20              25              30
Lys Ala Ile Lys Ala Gly Ile Lys Cys Lys Pro Pro Leu Cys Ser Asn
      35              40              45
Ser Pro Ile Cys Ile Ala Arg Glu Cys Ser Gly Pro Trp Gly Lys Gly
      50              55              60
Leu Leu Pro Pro Glu Gly Thr Leu Leu Pro Arg Pro Leu Leu Gly Glu
65              70              75              80
Gly Pro Lys Gly Glu Ala Ser Lys Phe Pro Leu Phe Phe Asp Leu Ser
      85              90              95
Leu Val His Leu Pro Gln Ala His Pro Ala Ala Ser
      100              105

```

<210> 2705
 <211> 843
 <212> DNA
 <213> Homo sapiens

<400> 2705
 nnacgcgtga cgtcccgct gatggctggg agggcccggc ggcgacagcg gaggcagaga
 60
 ggaaggcggg tctgagagct tcagagagcg atggaaagca aaatgggtga attgccttta
 120
 gacatcaaca tccaggaacc tcgctgggac caaagtactt tcctgggcag agcccggcac
 180
 tttttcactg ttactgatcc tcgaaatctg ctgctgtccg gggcacagct ggaagcttct
 240
 cggaacatcg tgcagaacta cagggccggc gtggtgaccc cagggatcac cgaggaccag
 300
 ctgtggaggg ccaagtatgt gtatgactcc gccttccatc cggacacagg ggagaagggtg
 360
 gtcttgattg gccgcatgtc agcccagggtg cccatgaaca tgaccatcac tggctgcatg
 420
 ctcacattct acaggaagac cccaaccgtg gtgttctggc agtgggtgaa tcagtccttc
 480
 aatgccattg ttaactactc caaccgcagt ggtgacactc ccatcactgt gaggcagctg
 540
 gggacagcct atgtgagtg caccactgga gctgtggcca cggccctggg actcaaatec
 600
 ctcaccaagc acctgcccc cttggctggc agattcgtac cctttgcagc agtggcagct
 660
 gccaaactgca tcaacatccc cctgatgagg cagagggagc tgcaggtggg catcccagtg
 720
 actgatgaag ctggtcagag acttggccac tcggtgactg ctgccaaaca gggcatcttc
 780
 caggtggtgg tatcgagaat cggcatggcg atccccgcca tggccattcc cccggtgatc
 840
 atg
 843

<210> 2706
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 2706
 Met Glu Ser Lys Met Gly Glu Leu Pro Leu Asp Ile Asn Ile Gln Glu
 1 5 10 15
 Pro Arg Trp Asp Gln Ser Thr Phe Leu Gly Arg Ala Arg His Phe Phe
 20 25 30
 Thr Val Thr Asp Pro Arg Asn Leu Leu Ser Gly Ala Gln Leu Glu
 35 40 45
 Ala Ser Arg Asn Ile Val Gln Asn Tyr Arg Ala Gly Val Val Thr Pro
 50 55 60
 Gly Ile Thr Glu Asp Gln Leu Trp Arg Ala Lys Tyr Val Tyr Asp Ser
 65 70 75 80
 Ala Phe His Pro Asp Thr Gly Glu Lys Val Val Leu Ile Gly Arg Met

85								90				95			
Ser	Ala	Gln	Val	Pro	Met	Asn	Met	Thr	Ile	Thr	Gly	Cys	Met	Leu	Thr
100								105				110			
Phe	Tyr	Arg	Lys	Thr	Pro	Thr	Val	Val	Phe	Trp	Gln	Trp	Val	Asn	Gln
115								120				125			
Ser	Phe	Asn	Ala	Ile	Val	Asn	Tyr	Ser	Asn	Arg	Ser	Gly	Asp	Thr	Pro
130								135				140			
Ile	Thr	Val	Arg	Gln	Leu	Gly	Thr	Ala	Tyr	Val	Ser	Ala	Thr	Thr	Gly
145								150				155			
Ala	Val	Ala	Thr	Ala	Leu	Gly	Leu	Lys	Ser	Leu	Thr	Lys	His	Leu	Pro
165								170				175			
Pro	Leu	Val	Gly	Arg	Phe	Val	Pro	Phe	Ala	Ala	Val	Ala	Ala	Ala	Asn
180								185				190			
Cys	Ile	Asn	Ile	Pro	Leu	Met	Arg	Gln	Arg	Glu	Leu	Gln	Val	Gly	Ile
195								200				205			
Pro	Val	Thr	Asp	Glu	Ala	Gly	Gln	Arg	Leu	Gly	His	Ser	Val	Thr	Ala
210								215				220			
Ala	Lys	Gln	Gly	Ile	Phe	Gln	Val	Val	Val	Ser	Arg	Ile	Gly	Met	Ala
225								230				235			
Ile	Pro	Ala	Met	Ala	Ile	Pro	Pro	Val	Ile	Met					
245								250							

<210> 2707

<211> 2921

<212> DNA

<213> Homo sapiens

<400> 2707

nnngcgagtg	gcgagtggcg	agtgtcaggg	gggcggcccg	cgggggcggg	gcggccggag
60					
gaggcgtttg	cagcgggctc	ggacccacgc	ggcgccgcgg	ccgcctggc	ctgcagcgct
120					
cccacccccg	gcggcggcac	gatgcccttt	gacttcagga	ggtttgacat	ctacaggaag
180					
gtgcccagg	accttacgca	gccaacgtac	accggggcca	ttatctccat	ctgctgctgc
240					
ctcttcatec	tcttctcttt	cctctcggag	ctcaccggat	ttataacgac	agaagtgtg
300					
aacgagctct	atgtcgatga	cccagacaag	gacagcggtg	gcaagatcga	cgtcagtctg
360					
aacatcagtt	tacccaatct	gcactgcgag	ttggttgggc	ttgacattca	ggatgagatg
420					
ggcaggcacg	aagtggggcca	catcgacaac	tccatgaaga	ttccgctgaa	caatgggggca
480					
ggctgccgct	tcgagggggca	gttcagcatc	aacaagggtcc	ccggcaactt	ccacgtgtcc
540					
acacacagtg	ccacagccca	gccacagaac	ccagacatga	cgcatgtcat	ccacaagctc
600					
tccttttggg	acacgctaca	ggtccagaac	atccacggag	ctttcaatgc	tctcggggga
660					
gcagacagac	tcacctccaa	ccccctggcc	tcccacgaact	acatcctgaa	gattgtgccc
720					
acggtttatg	aggacaagag	tggcaagcag	cggtactcct	accagtacac	ggcggccaac
780					

aaggaatacgc tgcctacag ccacacgggc cgcacatcc ctgcaatctg gttccgctac
840
gacctcagcc ccatacaggc caagtacaca gagagacggc agccgctgta cagattcatc
900
accacgatct gtgccatcat tggcgggacc ttcaccgtcg ccggcatcct ggactcatgc
960
atcttcacag cctctgaggc ctggaagaag atccagctgg gcaagatgca ttgacgccac
1020
accagccta atggccgagg accctgggca tcgccagcct tgccctcagt gccctgtctc
1080
ctttggccct caatctgggc ccaaactctgg ctgtgtccca aaggggtgtg ggggaagtggg
1140
gggaaagtag aggatggctc gatgttttgc agctacctct tttccccgtg tttcttttta
1200
gacaaattac actgcctgaa gttgcagttc ccctttccct ggggagcccc aagaacagag
1260
tcaggcaagg ggtggggagt ccagggatct tggggacccc tctaggaga gctgcagtct
1320
cttccctcag gggaacatcc cagaatgcat atcgatcagc tctcagccag gcttcgacaa
1380
tctcgcagcc cccactaggt ggacacatta atgatttggg ttctccctcg ggcagccaac
1440
ctgccccaga ggcaccagac ctgggctttc agctttggga ccaggctgcc caaagggtact
1500
cctttataca cccggcacct tccacgaaag atgggtacttc ccaagcaagc ccctatgatt
1560
tgtcactata gatggaaccc tgacttctgc cccatccctt cctgccaac ctagaaccca
1620
ggcctcaagt ctttacccca cccctttctt gttcttccaa gaagcagatg cccagttgct
1680
cagcagcagc ggtagagact tgaatctgcc caccagtcac aaggcgggtc acagattcct
1740
cttctctct tctcctcgtt cctctgaacc ctccaccaat gtgcctcagc ctgtgtgctg
1800
tgtggcaaca gcattctggg tccactgcc aagatctccc accactctgc tgggatctgc
1860
agtggcaggg agtgggggtt gtgtaaaggg gaagtcactt tttgagatcc agatagacat
1920
ggtttgtgca cttacgtcca gatgggaagc atccttctcg caaccctaaa ataatcatgc
1980
agcctctcag acggacgcca tcggtcccaa ggcccttaggt ggaggaagca aagcaggcca
2040
ggcctgtcct gtccgtggac ctctaccttc tggactccct acgggtgcag agcacttggg
2100
tttctctaca gccatcgtgg cccacttgac actgtgctcc tccatcagct ggtcacatgc
2160
caacacgttc ccagccctg aggcagctcc aggggtgccc acctgctcct gaggtgggtc
2220
cctaccctgc tgctcctct catcctttcc cttttgtcct gaaaggagg agcaatggtc
2280
caggcattaa ttccaccag ggaattttag ctatgccctc atgtcccagg gagagagcca
2340
cacgcctgtt ttccatttat agcaagattg tttgcatact tttgtaatga aggggagtgt
2400

ccagtggaag gattttttaa attatcttat ggatagctca agtctctgcc atttgaatt
 2460
 tttggctcta agctccgatt ggagacgctt ctcttctgtgc atgtgagttg actgatgttg
 2520
 tgagtgtaaa tgcatttggt tatttctggt atcgggtggcc acttggtatgg atttttttac
 2580
 attctgttcc ccagttacag gaaggagtcc ctttgggtgtg tgaatatgtg tgctgtaga
 2640
 ggggtggggca ggggtgggtg gggatggaaa tgtgtggcat gcacatgagt tgaaattctt
 2700
 ttatgcattt ttttgaagaa aaaaaaaaaa acaactctga ggacataggg gatgtcagtt
 2760
 tcctatggaa gagacacctc tgaccctgta ttcttataat caaaatctga agggaaaaaa
 2820
 atgttttagt tctttcccca ctctgtgggt tcaactagat taaaaggctg attttcagaa
 2880
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
 2921

<210> 2708

<211> 337

<212> PRT

<213> Homo sapiens

<400> 2708

Xaa	Ala	Ser	Gly	Glu	Trp	Arg	Val	Ser	Gly	Gly	Arg	Pro	Ala	Gly	Ala
1				5					10					15	
Gly	Arg	Pro	Glu	Glu	Ala	Leu	Ala	Ala	Gly	Ser	Asp	Pro	Arg	Gly	Ala
			20					25					30		
Ala	Ala	Arg	Leu	Ala	Cys	Ser	Ala	Pro	Thr	Pro	Gly	Gly	Gly	Thr	Met
		35					40					45			
Pro	Phe	Asp	Phe	Arg	Arg	Phe	Asp	Ile	Tyr	Arg	Lys	Val	Pro	Lys	Asp
	50					55				60					
Leu	Thr	Gln	Pro	Thr	Tyr	Thr	Gly	Ala	Ile	Ile	Ser	Ile	Cys	Cys	Cys
65					70				75					80	
Leu	Phe	Ile	Leu	Phe	Leu	Phe	Leu	Ser	Glu	Leu	Thr	Gly	Phe	Ile	Thr
			85					90					95		
Thr	Glu	Val	Val	Asn	Glu	Leu	Tyr	Val	Asp	Asp	Pro	Asp	Lys	Asp	Ser
			100					105					110		
Gly	Gly	Lys	Ile	Asp	Val	Ser	Leu	Asn	Ile	Ser	Leu	Pro	Asn	Leu	His
		115					120					125			
Cys	Glu	Leu	Val	Gly	Leu	Asp	Ile	Gln	Asp	Glu	Met	Gly	Arg	His	Glu
	130					135					140				
Val	Gly	His	Ile	Asp	Asn	Ser	Met	Lys	Ile	Pro	Leu	Asn	Asn	Gly	Ala
145				150					155					160	
Gly	Cys	Arg	Phe	Glu	Gly	Gln	Phe	Ser	Ile	Asn	Lys	Val	Pro	Gly	Asn
			165					170						175	
Phe	His	Val	Ser	Thr	His	Ser	Ala	Thr	Ala	Gln	Pro	Gln	Asn	Pro	Asp
		180					185						190		
Met	Thr	His	Val	Ile	His	Lys	Leu	Ser	Phe	Gly	Asp	Thr	Leu	Gln	Val
	195					200					205				
Gln	Asn	Ile	His	Gly	Ala	Phe	Asn	Ala	Leu	Gly	Gly	Ala	Asp	Arg	Leu
	210					215					220				
Thr	Ser	Asn	Pro	Leu	Ala	Ser	His	Asp	Tyr	Ile	Leu	Lys	Ile	Val	Pro

[illegible]

```
<210> 2709
<211> 984
<212> DNA
<213> Homo sapiens
```

```

<400> 2709
acgcgtgaag ggagcctagc tgaggctgat cacacagctc atgaagagat ggaagctcat
60
acgactgtga aagaagctga ggatgacaac atctcggtca caatccaggc tgaagatgcc
120
atcactctgg attttgatgg tgatgacctc ctataaacag gtaaaaatgt gaaaattaca
180
gattctgaag caagtaagcc aaaagatggg caggacgcca ttgcacagag cccggagaag
240
gaaagcaagg attatgagat gaatgcgaac cataaagatg gtaagaagga agactgcgtg
300
aagggtgacc ctgtcgagaa ggaagccaga gaaagttcta agaaagcaga atctggagac
360
aaagaaaagg atactttgaa gaaagggccc tcgtctactg gggcctctgg tcaagcaaag
420
agctcttcaa aggaatctaa agacagcaag acatcatcta aagatgacaa aggaagtaca
480
agtagtacta gtggtagcag tggaagctca actaaaaata tctggggttag tggactttca
540
tctaatacca aagctgctga tttgaagaac ctctttggca aatatggaaa ggttctgagt
600
gcaaaaagtag ttacaaatgc tcgaagtcct ggggcaaaat gctatggcat tgtaactatg
660
tcttcaagca cagaggtgtc caggtgtatt gcacatcttc atcgactga gctgcatgga
720
cagctgattt ctgttgaaaa agtaaaaggt gatccctcta agaaagaaat gaagaaagaa
780
aatgatgaaa agagtagttc aagaagttct ggagataaaa aaaatacgag tgatagaagt
840
agcaagacac aagcctctgt caaaaaagaa gagaaaagat cgtctgagaa atctgaaaaa
900
aaagaaagca aggatactaa gaaaatagaa ggtaaagatg agaagaatga taatggagca
960

```

agtggccaaa catcagaatc gatt
984

<210> 2710
<211> 242
<212> PRT
<213> Homo sapiens

<400> 2710
Met Asn Ala Asn His Lys Asp Gly Lys Lys Glu Asp Cys Val Lys Gly
1 5 10 15
Asp Pro Val Glu Lys Glu Ala Arg Glu Ser Ser Lys Lys Ala Glu Ser
20 25 30
Gly Asp Lys Glu Lys Asp Thr Leu Lys Lys Gly Pro Ser Ser Thr Gly
35 40 45
Ala Ser Gly Gln Ala Lys Ser Ser Lys Glu Ser Lys Asp Ser Lys
50 55 60
Thr Ser Ser Lys Asp Asp Lys Gly Ser Thr Ser Ser Thr Ser Gly Ser
65 70 75 80
Ser Gly Ser Ser Thr Lys Asn Ile Trp Val Ser Gly Leu Ser Ser Asn
85 90 95
Thr Lys Ala Ala Asp Leu Lys Asn Leu Phe Gly Lys Tyr Gly Lys Val
100 105 110
Leu Ser Ala Lys Val Val Thr Asn Ala Arg Ser Pro Gly Ala Lys Cys
115 120 125
Tyr Gly Ile Val Thr Met Ser Ser Ser Thr Glu Val Ser Arg Cys Ile
130 135 140
Ala His Leu His Arg Thr Glu Leu His Gly Gln Leu Ile Ser Val Glu
145 150 155 160
Lys Val Lys Gly Asp Pro Ser Lys Lys Glu Met Lys Lys Glu Asn Asp
165 170 175
Glu Lys Ser Ser Ser Arg Ser Ser Gly Asp Lys Lys Asn Thr Ser Asp
180 185 190
Arg Ser Ser Lys Thr Gln Ala Ser Val Lys Lys Glu Glu Lys Arg Ser
195 200 205
Ser Glu Lys Ser Glu Lys Lys Glu Ser Lys Asp Thr Lys Lys Ile Glu
210 215 220
Gly Lys Asp Glu Lys Asn Asp Asn Gly Ala Ser Gly Gln Thr Ser Glu
225 230 235 240
Ser Ile

<210> 2711
<211> 6536
<212> DNA
<213> Homo sapiens

<400> 2711
ttgttttaga aagctctttt attttcagtt ctggctgtgt tcaacatctt agcttacgtt
60
tttcatgttg taatgatctg ccgtacggac gatcacctct aagtttagaga gttctgtaat
120
ttggcttgga ttaaagatgc ttggttagtg aaagctgctg ctttttttat agtcaaagga
180

ctggttctga gagccttggt gcagatggct gaggtcacccg tcccaagggt gtatgtcgtg
 240
 tttggcatcc attgcatcat ggcgaaggca tcttcagatg tgcaggtttc aggctttcat
 300
 cggaaaatcc agcacgttaa aaatgaactt tgccacatgt tgagcttgga ggaggtggcc
 360
 ccagtgtctgc agcagacatt acttcaggac aacctcttggt gcagggtaca ttttgaccaa
 420
 tttaaagaag cattaatact catcttgtcc agaactctgt cagatgaaga acacttccaa
 480
 gaaccagact gctcactaga agctcagccc agatatgtta gaggtgagaa gccttacgga
 540
 cgaaggctct tgcccagagt ccaagagtcc gtggaggagt ttcctgaggt gacggtgatt
 600
 gagcccttgg atgaagaagc gcggccttca cacatcccag ccggtgactg cagtgagcac
 660
 tggaagacgc aacgcagtga ggagtatgaa gcggaaggcc agttaagggt ttggaaccca
 720
 gatgacttga atgcttcaca gagtggatct tccccctccc aagactggat agaagagaaa
 780
 ctgcaacaag tttgtgaaga tttggggatc acccctgatg gtcacctgaa ccggaagaag
 840
 ctggtttcca tctgtgagca gtatggtttg cagaatgtgg atggagagat gctcgaggaa
 900
 gtattccata atcttgatcc tgacggtaca atgagtgtag aagatTTTTT ctatggtttg
 960
 tttaaaaatg gaaaatctct tacaccatca gcatctactc catatagaca actaaaaagg
 1020
 cacctttcca tgcagtcttt cgatgagagt ggacgacgta ccacaacctc atcagcaacg
 1080
 acaagtacca ttggctttcg ggtcttctcc tgccctggatg atgggatggg ccatgcatct
 1140
 gtggagagga tactcgacac ctggcaggaa gagggcattg agaacagcca ggagatcctg
 1200
 aaggccttgg atttcagcct cgatggaaac atcaatttga cagaattaac actggccctt
 1260
 gaaaatgaac ttttggttac caagaacagc attcaccagg cggctctggc cagctttaag
 1320
 gctgaaatcc ggcatttggt ggaacgagtc gatcagggtg tcagagaaaa gagaagctac
 1380
 ggtcggatct ggacagccga gaagctcaag tctttaatgg cctcggaggt ggatgatcac
 1440
 gatgcggcca tagagcggcg gaatgagtac aacctcagga aactggatga agagtacaag
 1500
 gagcgaatag cagccttaaa aaatgaactc cgaaaagaga gagagcagat cctgcagcag
 1560
 gcaggcaagc agcgtttaga acttgaacag gaaattgaaa aggcaaaaaac agaagagaac
 1620
 tatatccggg accgccttgc cctctcttta aaggaaaaca gtcgtctgga aaatgagctt
 1680
 ctagaaaatg cagagaagtt ggcagaatat gagaatctga caaacaactc tcagagaaat
 1740
 ttggaaaatg tgtagcaga aaagtgttgg gacctcgatc ctagcagtgc tgagttcttc
 1800

ctgcaagaag agagactgac acagatgaga aatgaatatg agcggcagtg caggggtacta
 1860
 caagaccaag tagatgaact ccagtctgag ctggaagaat atcgtgcaca aggagagtg
 1920
 ctcaggcttc cgttgaagaa ctcaccgtca gaagaagttg aggctaacag cgggtggcatt
 1980
 gagcccgaac acgggctcgg ttctgaagaa tgcaatccat tgaatatgag cattgaggca
 2040
 gagctggtca ttgaacagat gaaagaacaa catcacaggg acatatgttg cctcagactg
 2100
 gagctcgaag ataaagtgcg ccattatgaa aagcagctgg acgaaaccgt ggtcagctgc
 2160
 aagaaggcac aggagaacat gaagcaaagg catgagaacg aaacgcacac cttagaagaa
 2220
 caaataagtg accttaaaat gaaaattgct gaacttcagg ggcaagcagc agtgctcaag
 2280
 gaggcacatc atgaggccac ttgcaggcat gaggaggaga aaaaacaact gcaagtgaag
 2340
 cttgaggagg aaaagactca cctgcaggag aagctgaggc tgcaacatga gatggagctc
 2400
 aaggctagac tgacacaggc tcaagcaagc tttgggcggg agagggaagg ccttcagagt
 2460
 agcgcttga cagaagagaa ggtgagaggc ttgactcagg aactagagca gtttcaccag
 2520
 gagcagctga caagcctggt ggagaaacat actcttgaga aagaggagtt aagaaaagag
 2580
 ctcttggaag agcaccaaag ggagcttcag gaggggaaggg aaaaaatgga aacagagtgt
 2640
 aatagaagaa cctctcaa atagaagccag tttcagctctg attgtcagaa agtcactgag
 2700
 aggtgtgaaa gcgctctgca aagcctggag gggcgctacc gccaaagagct gaaggacctc
 2760
 caggaacagc agcgtgagga gaaatccag tgggaatttg agaaggacga gctcacccag
 2820
 gagtgtgcgg aagcacagga gctgctgaaa gagactctta agagagagaa aacaacttct
 2880
 ctggtcctga ccaggagag agagatgctg gagaaaacat acaaagacca tttgaacagc
 2940
 atggtcgtcg agagacagca gctactccaa gacctggaag acctaagaaa tgtatctgaa
 3000
 acccagcaaa gcctgctgtc tgaccagata cttgagctga agagcagtc caaaaggga
 3060
 ctgagggagc gtgaggaggt cctgtgccag caggggggtct cggagcagct ggccagccag
 3120
 cggctggaaa gactagaaat ggaacatgac caggaaaggc aggaaatgat gtccaagctt
 3180
 ctagccatgg agaacattca caaagcgacc tgtgagacag cagatcgaga aagagccgag
 3240
 atgagcacag aaatctccag acttcagagt aaaataaagg aaatgcagca ggcaacatct
 3300
 cctctctcta tgcttcagag tggttgccag gtgataggag aggaggaggt ggaaggagat
 3360
 ggagccctgt ccctgcttca gaaaggggag cagctgttgg aagaaaatgg ggacgtcctc
 3420

ttaagcctgc agagagctca tgaacaggca gtgaaggaaa atgtgaaaat ggctactgaa
3480
atctcttagat tgcaacagag gctacaaaag ttagagccag ggtagtaat gtcttcttgt
3540
ttggatgagc cagctactga gtttttttga aatactgcgg aacaaacaga gccgttttta
3600
cagcaaaacc gaacgaagca agtagaaggt gtgaccaggc ggcatgtcct aagtgacctg
3660
gaagatgatg aggtccggga cctgggaagt acagggacga gctctgttca gagacaggaa
3720
gtcaaaatag aggagtctga agcttcagta gaggggtttt ccgagcttga aaacagtga
3780
gagaccagga ctgaatcctg ggagctgaaa aatcacatta gtctgttca ggaacagctc
3840
atgatgtttt gtgcggactg tgatctagct tctgaaaaga aacaggagct actttttgat
3900
gtttctgtgc tcaaaaagaa actgaaaatc cttgagagaa tccctgaggc ttctcccaga
3960
tataagctgt tgtatgaaga tgtgagccga gaaaatgact gccttcagga agagctggag
4020
atgatggaga cacgctacga tgaggcacta gaaaataaca aagaactcac tgcagagggt
4080
ttcaggttgc aggatgagct gaagaaaatg gaggaagtca ctgaaacatt cctcagcctg
4140
gaaaagagtt acgatgaggt caaaatagaa aatgaggagc tgaatgttct ggttttgaga
4200
cttcaaggca agattgagaa gcttnncacg agagcgtggg caagcgggtg gactgctgct
4260
tatgggaagn gcagtttaga gaacctggaa atcgaacctg atggaaatat actccagctc
4320
aatcagacac tggaagagtg tgtgcccagg gttaggagtg tacatcatgt catagaggaa
4380
tgtaagcaag aaaaccagta ccttgagggg aacacacagc tcttgaaaaa agtaaaagca
4440
catgaaattg cctggttaca tggaacaatt cagacacatc aagaaaggcc aagagtacag
4500
aatcaagtta tactggagga aaacactact ctcttaggct ttcaagacaa acattttcag
4560
catcaggcca ccatagcaga gttagaactg gagaaaacaa agttacagga gctgactagg
4620
aagttgaagg agagagtccc tatttttagtt aagcaaaaag atgtactttc tcccggaaaa
4680
aaggaggaag aactgaaggc aatgatgcat gacttgcaaa tcccttgagc tgagatgcag
4740
caaaagggtg aacttctgaa atatgaatct gaaaagcttc aacaggaaaa ttctattttg
4800
agaaatgaaa ttactacttt aaatgaagaa gatagcattt ctaacctgaa attagggaca
4860
ttaaatggat ctcaggaaga aatgtggcaa aaaacggaat ctgtaaaaca agaaaatgct
4920
gcagttctga agatggttga aaatttaaag aaacagattt cagaattaaa aatcaaaaac
4980
caacaattgg atttgaaaaa tacagaactt agccaaaaga actctccaaa ccaggaaaaa
5040

ctgcaagaac ttaatcaact gctaacagaa atgctatgcc agaaggaaaa agagccagga
5100
aacagtgcac tggaggaacg ggaacaagag aagtttaatc tgaaagaaga accggaacgt
5160
tgtaaagtgc agtcctccac tttagtgtct tctctggagg cggagctctc tgaagttaaa
5220
atacagaccc atattgtgca acaggaaaac ccccttctcc aagatgaact ggagaaaatg
5280
aaacagctgc acagatgtcc cgatctctcg aacttccagc aaaaaatctc tagtggtcta
5340
agctacaacg aaaaactgct gaaagaaaag gaagctctga gtgaggaatt aaatagctgt
5400
gtcgataagt tggcaaaatc aagtctttta gagcatagaa ttgcgacgat gaagcaggaa
5460
cagaaatcct ggggaacatca gagtgcgagc ttaaagacac agctggtggc ttctcaggaa
5520
aagggttcaga atttagaaga caccgtgcag aatgtaaacc tgcaaatgtc ccggatgaaa
5580
tctgaccac gagtgactca gcaggaaaag gaggctttta aacaagaagt gatgccttta
5640
cataagcaac ttcagaattc tgtgngcaag agctggggccc cagagatagc tactcatcca
5700
tcagggtctcc ataaccagca gaaaaggctg tcctgggaca agttggatca tctgatgaat
5760
gaggaacagc agctgctttg gcaagagaat gagaggctcc agaccatggt acagaacacc
5820
aaagccgaac tcacgcactc ccgggagaag gtccgtcaat tggaatccaa tcttcttccc
5880
aagcaccaaa aacatctaaa cccatcaggt accatgaatc ccacagagca agaaaaattg
5940
agcttaaaga gagagtgtga tcagtttcag aaagaacaat ctcttgctaa caggaaggctc
6000
agtcagatga attcccttga acaagaatta gaaacaattc atttggaata tgaaggcctg
6060
aaaaagaaac aagtaaaact ggatgagcag ctcatggaga tgcagcacct gaggtccact
6120
gcgacgccta gcccgtcccc tcatgcttgg gatttgcagc tgctccagca gcaagcctgt
6180
ccgatggtgc ccaggagca gtttctgcag cttcaacgcc agctgctgca ggcagaaagg
6240
ataaaccagc acctgcagga ggaacttgaa aacaggacct ccgaaaccaa cacaccacag
6300
ggaaaccagg aacaactggt aactgtcatg gaggaacgaa tgatagaagt tgaacagaaa
6360
ctgaaactag tgaaaaggct tcttcaagag aaagtgaatc agctcaaaga acaagtgagc
6420
ctaccgggtc atctctgttc acccacctca cattccagct ttaactccag ttttacatcc
6480
ctttattgcc attaactcgt taacttatgt tgtctaataa aggcaaattc tattat
6536

<210> 2712

<211> 2096

<212> PRT

<213> Homo sapiens

<400> 2712

```

Met Ala Glu Val Thr Val Pro Arg Val Tyr Val Val Phe Gly Ile His
 1           5           10           15
Cys Ile Met Ala Lys Ala Ser Ser Asp Val Gln Val Ser Gly Phe His
          20           25           30
Arg Lys Ile Gln His Val Lys Asn Glu Leu Cys His Met Leu Ser Leu
          35           40           45
Glu Glu Val Ala Pro Val Leu Gln Gln Thr Leu Leu Gln Asp Asn Leu
          50           55           60
Leu Gly Arg Val His Phe Asp Gln Phe Lys Glu Ala Leu Ile Leu Ile
65           70           75           80
Leu Ser Arg Thr Leu Ser Asp Glu Glu His Phe Gln Glu Pro Asp Cys
          85           90           95
Ser Leu Glu Ala Gln Pro Arg Tyr Val Arg Gly Glu Lys Pro Tyr Gly
          100          105          110
Arg Arg Ser Leu Pro Glu Phe Gln Glu Ser Val Glu Glu Phe Pro Glu
          115          120          125
Val Thr Val Ile Glu Pro Leu Asp Glu Glu Ala Arg Pro Ser His Ile
          130          135          140
Pro Ala Gly Asp Cys Ser Glu His Trp Lys Thr Gln Arg Ser Glu Glu
145          150          155          160
Tyr Glu Ala Glu Gly Gln Leu Arg Phe Trp Asn Pro Asp Asp Leu Asn
          165          170          175
Ala Ser Gln Ser Gly Ser Ser Pro Pro Gln Asp Trp Ile Glu Glu Lys
          180          185          190
Leu Gln Gln Val Cys Glu Asp Leu Gly Ile Thr Pro Asp Gly His Leu
          195          200          205
Asn Arg Lys Lys Leu Val Ser Ile Cys Glu Gln Tyr Gly Leu Gln Asn
          210          215          220
Val Asp Gly Glu Met Leu Glu Glu Val Phe His Asn Leu Asp Pro Asp
225          230          235          240
Gly Thr Met Ser Val Glu Asp Phe Phe Tyr Gly Leu Phe Lys Asn Gly
          245          250          255
Lys Ser Leu Thr Pro Ser Ala Ser Thr Pro Tyr Arg Gln Leu Lys Arg
          260          265          270
His Leu Ser Met Gln Ser Phe Asp Glu Ser Gly Arg Arg Thr Thr Thr
          275          280          285
Ser Ser Ala Thr Thr Ser Thr Ile Gly Phe Arg Val Phe Ser Cys Leu
          290          295          300
Asp Asp Gly Met Gly His Ala Ser Val Glu Arg Ile Leu Asp Thr Trp
305          310          315          320
Gln Glu Glu Gly Ile Glu Asn Ser Gln Glu Ile Leu Lys Ala Leu Asp
          325          330          335
Phe Ser Leu Asp Gly Asn Ile Asn Leu Thr Glu Leu Thr Leu Ala Leu
          340          345          350
Glu Asn Glu Leu Leu Val Thr Lys Asn Ser Ile His Gln Ala Ala Leu
          355          360          365
Ala Ser Phe Lys Ala Glu Ile Arg His Leu Leu Glu Arg Val Asp Gln
          370          375          380
Val Val Arg Glu Lys Arg Ser Tyr Gly Arg Ile Trp Thr Ala Glu Lys
385          390          395          400
Leu Lys Ser Leu Met Ala Ser Glu Val Asp Asp His Asp Ala Ala Ile

```


				405				410				415			
Glu	Arg	Arg	Asn	Glu	Tyr	Asn	Leu	Arg	Lys	Leu	Asp	Glu	Glu	Tyr	Lys
				420				425				430			
Glu	Arg	Ile	Ala	Ala	Leu	Lys	Asn	Glu	Leu	Arg	Lys	Glu	Arg	Glu	Gln
				435				440				445			
Ile	Leu	Gln	Gln	Ala	Gly	Lys	Gln	Arg	Leu	Glu	Leu	Glu	Gln	Glu	Ile
				450				455				460			
Glu	Lys	Ala	Lys	Thr	Glu	Glu	Asn	Tyr	Ile	Arg	Asp	Arg	Leu	Ala	Leu
				465				470				475			
Ser	Leu	Lys	Glu	Asn	Ser	Arg	Leu	Glu	Asn	Glu	Leu	Leu	Glu	Asn	Ala
				485				490				495			
Glu	Lys	Leu	Ala	Glu	Tyr	Glu	Asn	Leu	Thr	Asn	Lys	Leu	Gln	Arg	Asn
				500				505				510			
Leu	Glu	Asn	Val	Leu	Ala	Glu	Lys	Phe	Gly	Asp	Leu	Asp	Pro	Ser	Ser
				515				520				525			
Ala	Glu	Phe	Phe	Leu	Gln	Glu	Glu	Arg	Leu	Thr	Gln	Met	Arg	Asn	Glu
				530				535				540			
Tyr	Glu	Arg	Gln	Cys	Arg	Val	Leu	Gln	Asp	Gln	Val	Asp	Glu	Leu	Gln
				545				550				555			
Ser	Glu	Leu	Glu	Glu	Tyr	Arg	Ala	Gln	Gly	Arg	Val	Leu	Arg	Leu	Pro
				565				570				575			
Leu	Lys	Asn	Ser	Pro	Ser	Glu	Glu	Val	Glu	Ala	Asn	Ser	Gly	Gly	Ile
				580				585				590			
Glu	Pro	Glu	His	Gly	Leu	Gly	Ser	Glu	Glu	Cys	Asn	Pro	Leu	Asn	Met
				595				600				605			
Ser	Ile	Glu	Ala	Glu	Leu	Val	Ile	Glu	Gln	Met	Lys	Glu	Gln	His	His
				610				615				620			
Arg	Asp	Ile	Cys	Cys	Leu	Arg	Leu	Glu	Leu	Glu	Asp	Lys	Val	Arg	His
				625				630				635			
Tyr	Glu	Lys	Gln	Leu	Asp	Glu	Thr	Val	Val	Ser	Cys	Lys	Lys	Ala	Gln
				645				650				655			
Glu	Asn	Met	Lys	Gln	Arg	His	Glu	Asn	Glu	Thr	His	Thr	Leu	Glu	Glu
				660				665				670			
Gln	Ile	Ser	Asp	Leu	Lys	Met	Lys	Ile	Ala	Glu	Leu	Gln	Gly	Gln	Ala
				675				680				685			
Ala	Val	Leu	Lys	Glu	Ala	His	His	Glu	Ala	Thr	Cys	Arg	His	Glu	Glu
				690				695				700			
Glu	Lys	Lys	Gln	Leu	Gln	Val	Lys	Leu	Glu	Glu	Glu	Lys	Thr	His	Leu
				705				710				715			
Gln	Glu	Lys	Leu	Arg	Leu	Gln	His	Glu	Met	Glu	Leu	Lys	Ala	Arg	Leu
				725				730				735			
Thr	Gln	Ala	Gln	Ala	Ser	Phe	Gly	Arg	Glu	Arg	Glu	Gly	Leu	Gln	Ser
				740				745				750			
Ser	Ala	Trp	Thr	Glu	Glu	Lys	Val	Arg	Gly	Leu	Thr	Gln	Glu	Leu	Glu
				755				760				765			
Gln	Phe	His	Gln	Glu	Gln	Leu	Thr	Ser	Leu	Val	Glu	Lys	His	Thr	Leu
				770				775				780			
Glu	Lys	Glu	Glu	Leu	Arg	Lys	Glu	Leu	Leu	Glu	Lys	His	Gln	Arg	Glu
				785				790				795			
Leu	Gln	Glu	Gly	Arg	Glu	Lys	Met	Glu	Thr	Glu	Cys	Asn	Arg	Arg	Thr
				805				810				815			
Ser	Gln	Ile	Glu	Ala	Gln	Phe	Gln	Ser	Asp	Cys	Gln	Lys	Val	Thr	Glu
				820				825				830			
Arg	Cys	Glu	Ser	Ala	Leu	Gln	Ser	Leu	Glu	Gly	Arg	Tyr	Arg	Gln	Glu

835	840	845
Leu Lys Asp Leu Gln Glu Gln Gln Arg Glu Glu Lys Ser Gln Trp Glu		
850	855	860
Phe Glu Lys Asp Glu Leu Thr Gln Glu Cys Ala Glu Ala Gln Glu Leu		
870	875	880
Leu Lys Glu Thr Leu Lys Arg Glu Lys Thr Thr Ser Leu Val Leu Thr		
885	890	895
Gln Glu Arg Glu Met Leu Glu Lys Thr Tyr Lys Asp His Leu Asn Ser		
900	905	910
Met Val Val Glu Arg Gln Gln Leu Leu Gln Asp Leu Glu Asp Leu Arg		
915	920	925
Asn Val Ser Glu Thr Gln Gln Ser Leu Leu Ser Asp Gln Ile Leu Glu		
930	935	940
Leu Lys Ser Ser His Lys Arg Glu Leu Arg Glu Arg Glu Glu Val Leu		
945	950	955
Cys Gln Gln Gly Val Ser Glu Gln Leu Ala Ser Gln Arg Leu Glu Arg		
965	970	975
Leu Glu Met Glu His Asp Gln Glu Arg Gln Glu Met Met Ser Lys Leu		
980	985	990
Leu Ala Met Glu Asn Ile His Lys Ala Thr Cys Glu Thr Ala Asp Arg		
995	1000	1005
Glu Arg Ala Glu Met Ser Thr Glu Ile Ser Arg Leu Gln Ser Lys Ile		
1010	1015	1020
Lys Glu Met Gln Gln Ala Thr Ser Pro Leu Ser Met Leu Gln Ser Gly		
1025	1030	1035
Cys Gln Val Ile Gly Glu Glu Glu Val Glu Gly Asp Gly Ala Leu Ser		
1045	1050	1055
Leu Leu Gln Lys Gly Glu Gln Leu Leu Glu Glu Asn Gly Asp Val Leu		
1060	1065	1070
Leu Ser Leu Gln Arg Ala His Glu Gln Ala Val Lys Glu Asn Val Lys		
1075	1080	1085
Met Ala Thr Glu Ile Ser Arg Leu Gln Gln Arg Leu Gln Lys Leu Glu		
1090	1095	1100
Pro Gly Leu Val Met Ser Ser Cys Leu Asp Glu Pro Ala Thr Glu Phe		
1105	1110	1115
Phe Gly Asn Thr Ala Glu Gln Thr Glu Pro Phe Leu Gln Gln Asn Arg		
1125	1130	1135
Thr Lys Gln Val Glu Gly Val Thr Arg Arg His Val Leu Ser Asp Leu		
1140	1145	1150
Glu Asp Asp Glu Val Arg Asp Leu Gly Ser Thr Gly Thr Ser Ser Val		
1155	1160	1165
Gln Arg Gln Glu Val Lys Ile Glu Glu Ser Glu Ala Ser Val Glu Gly		
1170	1175	1180
Phe Ser Glu Leu Glu Asn Ser Glu Glu Thr Arg Thr Glu Ser Trp Glu		
1185	1190	1195
Leu Lys Asn His Ile Ser Leu Leu Gln Glu Leu Met Met Phe Cys		
1205	1210	1215
Ala Asp Cys Asp Leu Ala Ser Glu Lys Lys Gln Glu Leu Leu Phe Asp		
1220	1225	1230
Val Ser Val Leu Lys Lys Lys Leu Lys Ile Leu Glu Arg Ile Pro Glu		
1235	1240	1245
Ala Ser Pro Arg Tyr Lys Leu Tyr Glu Asp Val Ser Arg Glu Asn		
1250	1255	1260
Asp Cys Leu Gln Glu Glu Leu Glu Met Met Glu Thr Arg Tyr Asp Glu		

1265	1270	1275	1280
Ala Leu Glu Asn Asn Lys Glu Leu Thr	Ala Glu Val Phe Arg Leu Gln		
1285	1290	1295	
Asp Glu Leu Lys Lys Met Glu Glu Val Thr Glu Thr Phe Leu Ser Leu			
1300	1305	1310	
Glu Lys Ser Tyr Asp Glu Val Lys Ile Glu Asn Glu Glu Leu Asn Val			
1315	1320	1325	
Leu Val Leu Arg Leu Gln Gly Lys Ile Glu Lys Leu Xaa Thr Arg Ala			
1330	1335	1340	
Trp Ser Ser Gly Val Thr Ala Ala Tyr Gly Lys Xaa Ser Leu Glu Asn			
1345	1350	1355	1360
Leu Glu Ile Glu Pro Asp Gly Asn Ile Leu Gln Leu Asn Gln Thr Leu			
1365	1370	1375	
Glu Glu Cys Val Pro Arg Val Arg Ser Val His His Val Ile Glu Glu			
1380	1385	1390	
Cys Lys Gln Glu Asn Gln Tyr Leu Glu Gly Asn Thr Gln Leu Leu Glu			
1395	1400	1405	
Lys Val Lys Ala His Glu Ile Ala Trp Leu His Gly Thr Ile Gln Thr			
1410	1415	1420	
His Gln Glu Arg Pro Arg Val Gln Asn Gln Val Ile Leu Glu Glu Asn			
1425	1430	1435	1440
Thr Thr Leu Leu Gly Phe Gln Asp Lys His Phe Gln His Gln Ala Thr			
1445	1450	1455	
Ile Ala Glu Leu Glu Leu Glu Lys Thr Lys Leu Gln Glu Leu Thr Arg			
1460	1465	1470	
Lys Leu Lys Glu Arg Val Pro Ile Leu Val Lys Gln Lys Asp Val Leu			
1475	1480	1485	
Ser Pro Gly Lys Lys Glu Glu Leu Lys Ala Met Met His Asp Leu			
1490	1495	1500	
Gln Ile Pro Cys Ser Glu Met Gln Gln Lys Val Glu Leu Leu Lys Tyr			
1505	1510	1515	1520
Glu Ser Glu Lys Leu Gln Gln Glu Asn Ser Ile Leu Arg Asn Glu Ile			
1525	1530	1535	
Thr Thr Leu Asn Glu Glu Asp Ser Ile Ser Asn Leu Lys Leu Gly Thr			
1540	1545	1550	
Leu Asn Gly Ser Gln Glu Glu Met Trp Gln Lys Thr Glu Ser Val Lys			
1555	1560	1565	
Gln Glu Asn Ala Ala Val Leu Lys Met Val Glu Asn Leu Lys Lys Gln			
1570	1575	1580	
Ile Ser Glu Leu Lys Ile Lys Asn Gln Gln Leu Asp Leu Glu Asn Thr			
1585	1590	1595	1600
Glu Leu Ser Gln Lys Asn Ser Pro Asn Gln Glu Lys Leu Gln Glu Leu			
1605	1610	1615	
Asn Gln Leu Leu Thr Glu Met Leu Cys Gln Lys Glu Lys Glu Pro Gly			
1620	1625	1630	
Asn Ser Ala Leu Glu Glu Arg Glu Gln Glu Lys Phe Asn Leu Lys Glu			
1635	1640	1645	
Glu Pro Glu Arg Cys Lys Val Gln Ser Ser Thr Leu Val Ser Ser Leu			
1650	1655	1660	
Glu Ala Glu Leu Ser Glu Val Lys Ile Gln Thr His Ile Val Gln Gln			
1665	1670	1675	1680
Glu Asn Pro Leu Leu Gln Asp Glu Leu Glu Lys Met Lys Gln Leu His			
1685	1690	1695	
Arg Cys Pro Asp Leu Ser Asn Phe Gln Gln Lys Ile Ser Ser Val Leu			

1700										1705					1710						
Ser	Tyr	Asn	Glu	Lys	Leu	Leu	Lys	Glu	Lys	Glu	Ala	Leu	Ser	Glu	Glu						
		1715						1720				1725									
Leu	Asn	Ser	Cys	Val	Asp	Lys	Leu	Ala	Lys	Ser	Ser	Leu	Leu	Glu	His						
		1730					1735				1740										
Arg	Ile	Ala	Thr	Met	Lys	Gln	Glu	Gln	Lys	Ser	Trp	Glu	His	Gln	Ser						
1745					1750					1755					1760						
Ala	Ser	Leu	Lys	Thr	Gln	Leu	Val	Ala	Ser	Gln	Glu	Lys	Val	Gln	Asn						
				1765					1770					1775							
Leu	Glu	Asp	Thr	Val	Gln	Asn	Val	Asn	Leu	Gln	Met	Ser	Arg	Met	Lys						
			1780					1785					1790								
Ser	Asp	Pro	Arg	Val	Thr	Gln	Gln	Glu	Lys	Glu	Ala	Leu	Lys	Gln	Glu						
		1795					1800					1805									
Val	Met	Pro	Leu	His	Lys	Gln	Leu	Gln	Asn	Ser	Val	Xaa	Lys	Ser	Trp						
	1810					1815					1820										
Ala	Pro	Glu	Ile	Ala	Thr	His	Pro	Ser	Gly	Leu	His	Asn	Gln	Gln	Lys						
1825					1830					1835					1840						
Arg	Leu	Ser	Trp	Asp	Lys	Leu	Asp	His	Leu	Met	Asn	Glu	Glu	Gln	Gln						
				1845					1850					1855							
Leu	Leu	Trp	Gln	Glu	Asn	Glu	Arg	Leu	Gln	Thr	Met	Val	Gln	Asn	Thr						
			1860					1865					1870								
Lys	Ala	Glu	Leu	Thr	His	Ser	Arg	Glu	Lys	Val	Arg	Gln	Leu	Glu	Ser						
		1875					1880					1885									
Asn	Leu	Leu	Pro	Lys	His	Gln	Lys	His	Leu	Asn	Pro	Ser	Gly	Thr	Met						
	1890					1895					1900										
Asn	Pro	Thr	Glu	Gln	Glu	Lys	Leu	Ser	Leu	Lys	Arg	Glu	Cys	Asp	Gln						
1905					1910					1915					1920						
Phe	Gln	Lys	Glu	Gln	Ser	Pro	Ala	Asn	Arg	Lys	Val	Ser	Gln	Met	Asn						
				1925					1930					1935							
Ser	Leu	Glu	Gln	Glu	Leu	Glu	Thr	Ile	His	Leu	Glu	Asn	Glu	Gly	Leu						
			1940					1945					1950								
Lys	Lys	Lys	Gln	Val	Lys	Leu	Asp	Glu	Gln	Leu	Met	Glu	Met	Gln	His						
		1955					1960					1965									
Leu	Arg	Ser	Thr	Ala	Thr	Pro	Ser	Pro	Ser	Pro	His	Ala	Trp								

```
<210> 2713
<211> 2066
<212> DNA
<213> Homo sapiens
```

<400> 2713

ngcgctgggg cagccggggc agccggggca gcccggtcac cccgccccca ggcccacact
60
aagggtgtcc gcggcctgcc ctccaggcgg aggagcccgg actgcggaag gatggagctg
120
gccgccggaa gcttctcgga ggagcagttc tgggaggcct gcgccgagct ccagcagccc
180
gctctggccg gggccgactg gcagctccta gtggagacct cgggcatcag catctaccgg
240
ctgctggaca agaagactgg actttatgag tataaagtct ttggtgttct ggaggactgc
300
tcaccaactc tactggcaga catctatatg gactcagatt acagaaaaca atgggaccag
360
tatgttaaag aactctatga acaagaatgc aacggagaga ctgtggtcta ctgggaagtg
420
aagtaccctt tccccatgtc caacagagac tatgtctacc ttcggcagcg gcgagacctg
480
gacatggaag ggaggaagat ccatgtgatc ctggcccgga gcacctccat gcctcagctt
540
ggcgagaggt ctgggggtgat ccgggtgaag caatacaagc agagcctggc gattgagagt
600
gacggcaaga aggggagcaa agttttcatg tattacttcg ataaccggg tggccaaatt
660
ccgtcctggc tcattaactg ggccgccaaag aatggagtcc ctaacttctt gaaagacatg
720
gcaagagcct gtcagaacta cctcaagaaa acctaagaaa gagaactggg aacattgcat
780
ccatgggttg atgtctctgg aagtgaacc acccaatgtc tctggaagtg ccacctggaa
840
gtgccacctg gaagtgtctc tggaagagca cccaccactg ttcagccttc ccctgctgtt
900
tctgtcttca gaggcctaca cactaccaca tcctttctaa gcatgtttgc ctgacatcca
960
gtcactcgt ctgcttcctt tctcgtccc cccatcctgg gctgggctgc cttcttctac
1020
agttcaatat ggggcagact agggaaacct ttgcttgctt actattagga ggggaagtct
1080
tcagtaggga acacgatcat tccattgtgc aattttacgg ggatgggtgg gcggagggac
1140
acaacaaaat ttaagaatga ctatttgggc gggctggctc ttttgagct tgtgatttct
1200
tccagcttgg gaggggctgc tggaagtggc atttcgttca gagctgactt tcagtgcacc
1260
caaactggat gacgtgccaa tgtccatttg ccttatgctt tgtggagctg attaggctgg
1320
gatttgaggt gataatccag taagtcttcc ctcgttccta cttgtggagg atcagtagct
1380
gttatgatgc cagaccattt ggagaagtat cagaggcctg accggacaca taatacgaca
1440
accacatttt tcctcatcat ccatgaggaa atggatgatt tctcttttcc atatgtcact
1500
gggggaaagg ctgcctgtac ctctcaagct ttgcatttta ctggaaactg aggcgtcaag
1560

atggctgtgg cagctagcaa aagcaaagat gctttgtgca tagccttgtg aaaaagtatc
 1620
 tttctatgca ataagatgaa ttttcctccc agaataattta gaaatgtaga agggataaca
 1680
 gttcacagcc aggtaaaatt taactgggtgg cttaatgact ctgcaccttt ttctcaggaa
 1740
 ttctgcctaa gttgtctgcc ttttctacca ccaaaaagac ttttagtttt ctatgctttc
 1800
 tcctgaattt tggtagggta aggtatttct atgtcaaagg cacagccttg atgatctcag
 1860
 ggaaaaattt taatcactgt gtataatgat actgaacctt gattaataac agaaattcag
 1920
 gatgtaaagc cacagaatgg gatattattaa tgtgggatac ctcagactgt ttgttttctt
 1980
 tctgggaaga aaagtgtgtt ctataatgaa taaatataga gtgggttttta aaaaaaaaaa
 2040
 aaaaaaaaaa aaaaaaaaaa aaaaaa
 2066

<210> 2714

<211> 214

<212> PRT

<213> Homo sapiens

<400> 2714

Met	Glu	Leu	Ala	Ala	Gly	Ser	Phe	Ser	Glu	Glu	Gln	Phe	Trp	Glu	Ala
1				5					10					15	
Cys	Ala	Glu	Leu	Gln	Gln	Pro	Ala	Leu	Ala	Gly	Ala	Asp	Trp	Gln	Leu
			20					25					30		
Leu	Val	Glu	Thr	Ser	Gly	Ile	Ser	Ile	Tyr	Arg	Leu	Leu	Asp	Lys	Lys
			35				40					45			
Thr	Gly	Leu	Tyr	Glu	Tyr	Lys	Val	Phe	Gly	Val	Leu	Glu	Asp	Cys	Ser
			50			55					60				
Pro	Thr	Leu	Leu	Ala	Asp	Ile	Tyr	Met	Asp	Ser	Asp	Tyr	Arg	Lys	Gln
65					70				75					80	
Trp	Asp	Gln	Tyr	Val	Lys	Glu	Leu	Tyr	Glu	Gln	Glu	Cys	Asn	Gly	Glu
				85				90					95		
Thr	Val	Val	Tyr	Trp	Glu	Val	Lys	Tyr	Pro	Phe	Pro	Met	Ser	Asn	Arg
			100				105					110			
Asp	Tyr	Val	Tyr	Leu	Arg	Gln	Arg	Arg	Asp	Leu	Asp	Met	Glu	Gly	Arg
		115				120					125				
Lys	Ile	His	Val	Ile	Leu	Ala	Arg	Ser	Thr	Ser	Met	Pro	Gln	Leu	Gly
		130				135					140				
Glu	Arg	Ser	Gly	Val	Ile	Arg	Val	Lys	Gln	Tyr	Lys	Gln	Ser	Leu	Ala
145					150				155					160	
Ile	Glu	Ser	Asp	Gly	Lys	Lys	Gly	Ser	Lys	Val	Phe	Met	Tyr	Tyr	Phe
			165					170					175		
Asp	Asn	Pro	Gly	Gln	Ile	Pro	Ser	Trp	Leu	Ile	Asn	Trp	Ala	Ala	
		180				185					190				
Lys	Asn	Gly	Val	Pro	Asn	Phe	Leu	Lys	Asp	Met	Ala	Arg	Ala	Cys	Gln
		195				200					205				
Asn	Tyr	Leu	Lys	Lys	Thr										
			210												

<210> 2715

<211> 378

<212> DNA

<213> Homo sapiens

<400> 2715

atccaccatg tgaagaggca gacaggcatt cagaaggagg acaaataaa gataaaacaa
 60
 atcatgcatc attttattcc agatttgctc tttgccc aaa gaggtgatct ctcagatgtg
 120
 gaggaagagg aagaagaaga gatggatgta gatgaagcca caggggcagt taagaagcac
 180
 aatgggtgttg gaggcagtcc ccctaagtcc aagttactgt ttagtaacac agcagctcaa
 240
 aaattaagag gaatggatga agtatacaac ctcttctatg tcaacaacaa ctggtatatt
 300
 tttatgcgac tgcaccagat tctctgctg aggctgctac ggatttggtc ccaagccgaa
 360
 cggcaaattg aagaagaa
 378

<210> 2716

<211> 126

<212> PRT

<213> Homo sapiens

<400> 2716

Ile	His	His	Val	Lys	Arg	Gln	Thr	Gly	Ile	Gln	Lys	Glu	Asp	Lys	Tyr
1				5					10					15	
Lys	Ile	Lys	Gln	Ile	Met	His	His	Phe	Ile	Pro	Asp	Leu	Leu	Phe	Ala
			20					25					30		
Gln	Arg	Gly	Asp	Leu	Ser	Asp	Val	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Met
		35					40					45			
Asp	Val	Asp	Glu	Ala	Thr	Gly	Ala	Val	Lys	Lys	His	Asn	Gly	Val	Gly
		50				55					60				
Gly	Ser	Pro	Pro	Lys	Ser	Lys	Leu	Leu	Phe	Ser	Asn	Thr	Ala	Ala	Gln
65					70				75					80	
Lys	Leu	Arg	Gly	Met	Asp	Glu	Val	Tyr	Asn	Leu	Phe	Tyr	Val	Asn	Asn
			85					90					95		
Asn	Trp	Tyr	Ile	Phe	Met	Arg	Leu	His	Gln	Ile	Leu	Cys	Leu	Arg	Leu
		100					105					110			
Leu	Arg	Ile	Cys	Ser	Gln	Ala	Glu	Arg	Gln	Ile	Glu	Glu	Glu		
		115					120					125			

<210> 2717

<211> 2076

<212> DNA

<213> Homo sapiens

<400> 2717

tttttttttt tttttttttt ccttacacgt ccatttatta aacaagttcc ttcatgacaa
 60
 ttttaatacaa tagttattaa cgattagtgt tgagaaaatt atttcctct acatacaaaa
 120

atacagattt gaacactatg aaaaagatca agacaagtac catgaaaaac tggtccttca
 180
 aatgaaaggg ggaaaattga gggcaatgtg aggctttgcc tgctgtcggg gacaaatcaa
 240
 tagcagcaaa gctttggggc cccaaccac tccatacata cagacttgaa cccaaaagcc
 300
 aggccagcca ggggacgcc acccagggct tccacgtcag ctgaaaaacc aaacacataa
 360
 acctaagttt gcccaacggg catcgctca gaaagccac agttgtgtct ttaaactgcc
 420
 gaaatgaaag agacttgatg agtaaaatgt gatagttgtt aacattgccc cccaaaagt
 480
 ccaccaggtg aagtaccacg gagaaatcat attggaaagt tactacttag ccatctgact
 540
 tgacttcctt ggttatcaaa taattacata ttctgacct tcagaaggac accaaaagct
 600
 acaattttat gtttcaatcc atctgtacct tcatttgcaa tggctcagct agtttactca
 660
 agggtttttg gaccagacat aactcacgtc ctgcaggaag gagaagcaaa aggagccggt
 720
 gaagagtacg tgtctgtgtc ttggtgtcat ctagctctc acagcaaaca gcctgttttg
 780
 ttcagcctga agcctggaag aggccgccga gcctagccag agcatccaca acgaaccaat
 840
 ctgagatccg agtggaagat gagagccccg gagctggctg aggtcccca ggaagcttcc
 900
 cactctgcag tggcaggaag gccatgcctc tgcaggacgc tcgcactgat tctggaaggg
 960
 cccaggccag agaatacact tgggctcagt tcaccagccc aaaccacagg ggaaggagcc
 1020
 ggacaccggc ctctcaccat ttacaccca aagacaggag gtcagggctc tgatgctact
 1080
 cttctgtttg taaaatatgg aaccactttc ttgtactgt ttgaggtag cagtggctcc
 1140
 aaactgagca agtgggttaa aaatgccaaa tgcaattata ctgacttata attatttcac
 1200
 agaaatatac tcttactctc agactattta aataagcagg aacaagatgc aggagaagca
 1260
 gcagcagaga ggaaagagga atagccaggg aatttttttt gttttttttc ttctttaaaa
 1320
 tacatacgaa gtgtaaagag aaaatggcca aaacctcaaa actaccattg ttgaaaacaa
 1380
 tattaagagg acacaatcta aaatcatgct acaaaaatag tgttatcttg tttactaaa
 1440
 tgtacatctt tttttccaat tccatgattg acaagagtgc ttatgcgacg catggaaggc
 1500
 accagaggtg aagtgattat ttgccttaa atatacaaag aattgcctac tttgaaaaaa
 1560
 aaaatagtca tacttgtaaa taaatagttt agtggttctg ccatgggttc ctgaaccct
 1620
 acaaatcca acatatacaa atagtttcaa ttcctaccat tctcttagag ggaaccacgt
 1680
 caaacaatat caagttagga aaagcactga ttttatccaa gtaggtcaat ttgaggcaag
 1740

attcaaaaac tcatttttaa atgggttaca gagtgaaaga gttgggaaca ggcagcccc
 1800
 tttgggcctg ggtcagccta cgagtccatc ccagggtgtcc tgccctcaca tctgccagcc
 1860
 ctcaggccgg ccagggtctcc cttcaaacc ttagtatttg ccttcctcac ttctgcgaag
 1920
 aggggaacag aatcttgaag cttgcaaaat cgattctgga aaaagcaggc aagcaaagca
 1980
 gggcctgtgg ggggaagcag cgtgagtcag gcctcaccct ggtgcaaggg caccagcagg
 2040
 tctccctcct ctcccctcct caccatccct acgcgt
 2076

<210> 2718

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2718

Met	Arg	Ala	Pro	Glu	Leu	Ala	Glu	Val	Pro	Gln	Glu	Ala	Ser	His	Ser
1				5				10					15		
Ala	Val	Ala	Gly	Arg	Pro	Cys	Leu	Cys	Arg	Thr	Leu	Ala	Leu	Ile	Leu
			20					25					30		
Glu	Gly	Pro	Arg	Pro	Glu	Asn	Thr	Leu	Gly	Leu	Ser	Ser	Pro	Ala	Gln
			35				40					45			
Thr	Thr	Gly	Glu	Gly	Ala	Gly	His	Arg	Pro	Leu	Thr	Ile	Leu	His	Pro
			50				55					60			
Lys	Thr	Gly	Gly	Gln	Gly	Ser	Asp	Ala	Thr	Leu	Leu	Phe	Val	Lys	Tyr
65				70						75				80	
Gly	Thr	Thr	Phe	Phe	Val	Leu	Phe	Glu	Val	Ser	Ser	Gly	Ser	Lys	Leu
			85						90					95	
Ser	Lys	Trp	Leu	Lys	Asn	Ala	Lys	Cys	Asn	Tyr	Thr	Asp	Leu		
			100						105				110		

<210> 2719

<211> 546

<212> DNA

<213> Homo sapiens

<400> 2719

gtgggttatca ccttcaacca aggactccgg ggtgggcgcg tggaggagct gaagaaaata
 60
 gtggatgagg ctgtgnaaca ctgccccacc gtgcagcatg tctgggtggc tcacaggaca
 120
 gacaacaagg tccacatggg ggatctggac gtcccgtgg agcaggaaat ggccaaggag
 180
 gaccctgttt gcgccccaga gagcatgggc agtgaggaca tgctcttcat gctgtacacc
 240
 tcaggggagca ccggaatgcc caagggcata gtccataccc aggcaggcta cctgctctat
 300
 gccgcctga ctcaaaagct tgtgtttgac caccagccag gtgacatctt tggctgtgtg
 360
 gccgacatcg gttggattac aggacacagc tacgtggtgt atgggcctct ctgcaatggt
 420

gccaccagcg tcctttttga gagcacccca gtttatccca atgctgggtcg gtactgggag
 480
 acagtagaga ggttgaagat caatcagttc tatgggtgcc caacggctgt cgggctgttg
 540
 ctgaaa
 546

<210> 2720
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 2720
 Val Val Ile Thr Phe Asn Gln Gly Leu Arg Gly Gly Arg Val Val Glu
 1 5 10 15
 Leu Lys Lys Ile Val Asp Glu Ala Val Xaa His Cys Pro Thr Val Gln
 20 25 30
 His Val Leu Val Ala His Arg Thr Asp Asn Lys Val His Met Gly Asp
 35 40 45
 Leu Asp Val Pro Leu Glu Gln Glu Met Ala Lys Glu Asp Pro Val Cys
 50 55 60
 Ala Pro Glu Ser Met Gly Ser Glu Asp Met Leu Phe Met Leu Tyr Thr
 65 70 75 80
 Ser Gly Ser Thr Gly Met Pro Lys Gly Ile Val His Thr Gln Ala Gly
 85 90 95
 Tyr Leu Leu Tyr Ala Ala Leu Thr His Lys Leu Val Phe Asp His Gln
 100 105 110
 Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp Ile Thr Gly
 115 120 125
 His Ser Tyr Val Val Tyr Gly Pro Leu Cys Asn Gly Ala Thr Ser Val
 130 135 140
 Leu Phe Glu Ser Thr Pro Val Tyr Pro Asn Ala Gly Arg Tyr Trp Glu
 145 150 155 160
 Thr Val Glu Arg Leu Lys Ile Asn Gln Phe Tyr Gly Ala Pro Thr Ala
 165 170 175
 Val Arg Leu Leu Leu Lys
 180

<210> 2721
 <211> 5912
 <212> DNA
 <213> Homo sapiens

<400> 2721
 aggcagctgc tgcctatgc tttgatacat ccagccactt cgtagaaga ccgtagtgct
 60
 ttagccatgt ggctgaatca cttggaggac cgcacgtcga ccagctttgg tggccagaac
 120
 cgaggccgct cagactctgt ggattatgga cagacacact actatcacca aagacagaac
 180
 tctgatgaca agctcaatgg gtggcagaac tctcgggatt ctgggatttg catcaatgcc
 240
 tccaactggc aggacaaaag catgggggtgt gagaatggcc atgtgccct ctactcctcc
 300

tcacatctgtcc ccaccacaat caatacagatt ggaaccagca caagtacaaa tgttccagcc
360
tggtctgaaaa gcctccgcct gcacaaatat gccgcgcttt tctcccagat gacctatgag
420
gagatgatgg ccttcaccga gtgccagctg gaggcgcaga atgtttaccaa aggtgcaaga
480
cacaaaattg tcatcagtat tcagaagctc aaagaaagac aaaatctcct gaagtctttg
540
gaaagggaca tcatcgaggg gggcagcctg cgcaccccg tccaggaact gcaccagatg
600
atcctgactc cgatcaaggc ctacagctcc ccgagcacca ccccgaggc tcgcccggg
660
gagccccagg ccccgcgctc gccctcactg atgggccccg agagccagag ccccgactgc
720
aaagatgggg ccgcagccac tggcgccacg gccacccctt cggccggggc cagcgggggg
780
ctccagccgc accagctgag cagctgcgat ggggagctgg ccgtcgcccc cctgccagag
840
ggggacctcc ccgggcagtt cacacgcgtc atggggaaaag tgtgcacaca gctcttggtc
900
tccagacctg atgaggaaaa tataagttcc tatttacagc tcatagacaa gtgtctaatt
960
catgaggcat ttacagagac acagaaaaaa agattgttgt catggaaaca gcagggtgcag
1020
aagctctttc ggtctttccc tcggaaaacc cttctagaca tatcaggata tcgacagcaa
1080
agaaatcgag gctttgggca atccaactcc ctcccagcgg ctggctctgt gggcgggtggc
1140
atgggcagac ggaaccgcg ccagtaccag atcccctctc ggaacgtccc ttccgcccgc
1200
ctgggcctct tgggcaccag tggattcgtc agctccaacc agcgcaacac cacagctacc
1260
cccaccatca tgaaacaagg aagacagaac ctgtgggttg ccaaccccgg gggcagcaat
1320
agcatgccaa gccgcacca cagctcagtc cagaggaccc gctcgctgcc cgtgcacact
1380
tccccacaga acatgctgat gttccagcag ccagaattcc agcttcccgt gaccgaacct
1440
gacatcaaca acaggctgga gtcgttgtgc ctacgtatga ccgaacacgc cctgggagac
1500
gggggttgacc ggacctccac catctagaag ctgaagacga gagtgaccgc gctggccgtg
1560
aaatcgactg ctgcgggtcc agtgtccgcc atcttcaggg ttgcacagaa tcctccaaga
1620
tactttgcag ccttttttcc cctgggtccc tctcccgttt tgattttgtg agagcgtagg
1680
tcacctctgt aaacatatca gtagacctgg ggttggttat tttgtcattt gtttctgtca
1740
tggtgatggtt tggtgtgtgg ggtggggagg ggtctctagg gaattatgag actgggaggg
1800
gggtggaggg aatgcaggta gctctctgga tggaaacgggg acaggggaaa gactactgcc
1860
atgaaagaga taggagacac ataagaggac agcagaagcc ctggccctgg ggaggcttct
1920

cggaaggcct ggcttcacag gcaggccaca gaaggatata gcggggcacgt gcacccaaag
1980
caagatagtg gcttcccttt tatatccaat ctaatcctga ttggatgtcc ctgaggcccc
2040
tgctggaaac agccatagga gagggcccat ggcagtaggg gaaagaagga agaaattccc
2100
tgcaacaaaa cttcagctaa actttgattt gtgtattgtt tacataataa ttttaaaggg
2160
tacataatgt gtaaagagtt tggatagaac ctctcttcat actatggttt tcgtaaagga
2220
tctgttggtt ttacggattc attttttccc tctattttta taagagcagc agagttgtct
2280
tctcaaaacg gctgccaaagc tctgcttctt gggaaagatgg atgcagtcac gtaggcctga
2340
gctgtccgtc tttcacggtt aggtgggagg agcgtatggg tggacttgaa ggacatggac
2400
gtggctggaa tgagcacagc attgggtgag cgcgcaagga tgaggacatc atgtgatcag
2460
ttatgggttt gctcgcaggg caccagaga ttctcaaaga atcctgcagc ctctttctgt
2520
gctggatttg cttgtcacgg agaggcctcc ctccctttcc accccacca tggggcatta
2580
tcctgtcact ccagccttg ctccacacac acacaggtgg gtacaagttc cactggagga
2640
gaaaaggcaa ggatggactt tttccccttg tgagaggttt gataccaga aaatgagctc
2700
aaaaccttta cattaggggtt gcttgttaga actggagcct ggaggctgca tctacttcac
2760
ctgtcactgc tgaggggagag gaggggagaa agggccagca acagcgtaca gaggggtcag
2820
tcagcaagtc cagagagcac atgcaggag atgtttggcc cacaccgac agccccgcca
2880
tctccagtgg gcgatgaaag atgtaggaaa ggttgatttc aagatggaaa tgacagcgt
2940
atccgcacag tatgaattag ggatttgctg tgttagttga tttatccatc cacacagagg
3000
ggaggaaaaa gacactcgtt acttggtggg agattgagaa actgtggtac ctaccacaaa
3060
gtaatagctc tgtttatgaa gggcaagaaa ggctacattt cagaatttga cacagtggag
3120
ggtattagag gaaatcaaag aggagtgtg tggaaaatca ggttgtgtaa atgaaggat
3180
gaatgctcag ccagaggcaa gatcaggag atggtacaag gcctgtttgt tacatggatg
3240
agtcgggtgc ctggttgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gaagtcagag
3300
ttgaaattca gaagatcaga ctatggaaat cactgccctt ttttttttaa aagctaata
3360
actacatata gacctaaaag gccttaatga aatccgaaca attttctttt actttcaaga
3420
tcaaaaacat gcacccaacc cagccttggg tgccaccacc aggtttttga agcccttttg
3480
agtctaagaa ggtgagaaca atgtaacat agaaagcctt tcgtgagcag agaaggcttg
3540

aatccacaat ttcattcgct gaattaaaaa aaaaagggtc agacctctcc ttgggtgact
3600
aagttctaaa gatgcaaadc catgtgcaga aagagatggc attttttagt tgattatttt
3660
taaccaagtg ccattaacat tcatccccc catccctttt ctaaacaagc ttagtggtac
3720
ttggggaatg tggtgggatg gacgatcaca tgtaaggcag gaagaatagg tcaaagggtg
3780
aaggccaaag gtaagaccag agggtttgcg aatgtgggtt tgtaggatac tgagaaagtg
3840
aataaagagg agaaaaaacc atggtattac acatcttgct gagaaaggaa agcattcgga
3900
tctgctgcaa aaacacatat atccataaag actcatgtta ttcagaaaac agattgtgaa
3960
cacaatcaca ttcgcatgaa tcctttaaaa ggaagaagac cttaaagtat ctgcaaactc
4020
gaatttctat ttattccttc actgaatata gaaacaatgg ttatctgatt attagagata
4080
ttattttgga tatgttactt attaacttgc tatggctggg aaccatgata aagtctgtta
4140
ttaataacaa cataattctt tttttaaaga agaaaagctt atttttcatt gacagtgtat
4200
agatttatct acttagttgt gttttgctat tagtgtttta attttttttt taagttgagt
4260
gtttgataaa ttttaagacc ctgtccccc cttgttttga gtcctgtgtt gactacaggt
4320
atatagctca atttaaaaat cctaaagcaa aagaatttta tttataaaaag aatcaaacag
4380
ttgcatgcat gaggtgtga agtcagatat ttagtaataa aagcagcagt gccttttttt
4440
gtatttacc attgaccccc accaaatgca actgttttat attaagaaaa tagtaacaat
4500
tttaaaatct cagagtaaaa tctatttcac tacatgcttt tcccccttg ttctgattta
4560
agcagtgtgt acttggcatc tctacattgt cctagggaca gtggtgttct acaatattat
4620
catgtatgat gttttattgg tgctttttat tcatagtggc ttcttaccag aaacagtagg
4680
aagaaacaca tgaactgtgt acaagacatg aaacattgct gctgatatgt tgttttttca
4740
catgcttttg agttttcact ttttaaacga gagccagcaa gcaaaataga tgtggctggg
4800
tctgctgtc cgggcggtc tttgcaccga gctctcaaact cctgtgtatt gagggttcct
4860
ttttggtact caggattgga gctacagctg ggccccctc tctccattc gtttgaagag
4920
acactgaggg aaacaagggt ttcttttgag gtgtccttgg ctgcctttta cgggatggga
4980
gccttctccg gatcttttgt tcttctgcac ctcttgtagc tactgccggt gcaaggttgt
5040
agatgttatt cccagggagc ctgggctggg gggctgagct gggctgaatg caaaagcatg
5100
caaccagaag gcgggcaagg ggaggaaaag caggcctggc ctcatgtgtc cctggagat
5160

gtctgtagca gtcagctcca gcttgggcct ggggaagcag cctgaccaag gcgctcaggt
 5220
 gtgcctgtta caagaagaac ctgcagaagg ataatttgca catggagctg tgataacact
 5280
 aatgttgatt tttttttttt ttacaagtca tcagagatgt ttgcaaagtg agttttatct
 5340
 ttttgtaatt cctttatctt tacttaaagg tgaatgtgta ttcctctggg aggaatagga
 5400
 agaaaacagg aatgttaata atgtcgaaca gaaaacttcc tcccttatta atatataatc
 5460
 ctcatgtatt tatgcctaata gtaagctgac ttttaaaaag ctttcttttg ttgcatgccc
 5520
 tgtgcaggca tctgtattgt acatgcatgc ctttcgtcct gttttcctgt ataaagttag
 5580
 tgaacaaaga aatatttttg cctagttcat gttgccaagc aatgcatatt ttttaaattt
 5640
 gtcatatatg gaaagagcat gtttggtaca tgtaaaagct ttactgatat acagatatat
 5700
 taatgtttga agatgctgtt ctttgcaagt gtacagtttt caaatgttgt taccagttaa
 5760
 acacccttgt ggtttaaact tgctacaatg tatttattat tcatttcctc ccatgtaact
 5820
 aagaatcatg gctatatttc atatcaacgt tatattgaaa gtgaaggga atgattaata
 5880
 caaggttttg taacaaaaaa aaaaaaaaaa aa
 5912

<210> 2722

<211> 508

<212> PRT

<213> Homo sapiens

<400> 2722

Arg	Gln	Leu	Leu	Ser	Tyr	Ala	Leu	Ile	His	Pro	Ala	Thr	Ser	Leu	Glu
1				5					10					15	
Asp	Arg	Ser	Ala	Leu	Ala	Met	Trp	Leu	Asn	His	Leu	Glu	Asp	Arg	Thr
			20					25					30		
Ser	Thr	Ser	Phe	Gly	Gly	Gln	Asn	Arg	Gly	Arg	Ser	Asp	Ser	Val	Asp
		35				40					45				
Tyr	Gly	Gln	Thr	His	Tyr	Tyr	His	Gln	Arg	Gln	Asn	Ser	Asp	Asp	Lys
	50					55					60				
Leu	Asn	Gly	Trp	Gln	Asn	Ser	Arg	Asp	Ser	Gly	Ile	Cys	Ile	Asn	Ala
65					70					75				80	
Ser	Asn	Trp	Gln	Asp	Lys	Ser	Met	Gly	Cys	Glu	Asn	Gly	His	Val	Pro
			85					90					95		
Leu	Tyr	Ser	Ser	Ser	Ser	Val	Pro	Thr	Thr	Ile	Asn	Thr	Ile	Gly	Thr
		100						105					110		
Ser	Thr	Ser	Thr	Asn	Val	Pro	Ala	Trp	Leu	Lys	Ser	Leu	Arg	Leu	His
		115					120					125			
Lys	Tyr	Ala	Ala	Leu	Phe	Ser	Gln	Met	Thr	Tyr	Glu	Glu	Met	Met	Ala
	130					135					140				
Leu	Thr	Glu	Cys	Gln	Leu	Glu	Ala	Gln	Asn	Val	Thr	Lys	Gly	Ala	Arg
145					150				155					160	
His	Lys	Ile	Val	Ile	Ser	Ile	Gln	Lys	Leu	Lys	Glu	Arg	Gln	Asn	Leu

				165					170					175			
Leu	Lys	Ser	Leu	Glu	Arg	Asp	Ile	Ile	Glu	Gly	Gly	Ser	Leu	Arg	Ile		
			180					185					190				
Pro	Leu	Gln	Glu	Leu	His	Gln	Met	Ile	Leu	Thr	Pro	Ile	Lys	Ala	Tyr		
		195					200					205					
Ser	Ser	Pro	Ser	Thr	Thr	Pro	Glu	Ala	Arg	Arg	Arg	Glu	Pro	Gln	Ala		
	210					215					220						
Pro	Arg	Gln	Pro	Ser	Leu	Met	Gly	Pro	Glu	Ser	Gln	Ser	Pro	Asp	Cys		
225				230					235					240			
Lys	Asp	Gly	Ala	Ala	Ala	Thr	Gly	Ala	Thr	Ala	Thr	Pro	Ser	Ala	Gly		
			245					250					255				
Ala	Ser	Gly	Gly	Leu	Gln	Pro	His	Gln	Leu	Ser	Ser	Cys	Asp	Gly	Glu		
		260					265					270					
Leu	Ala	Val	Ala	Pro	Leu	Pro	Glu	Gly	Asp	Leu	Pro	Gly	Gln	Phe	Thr		
	275					280					285						
Arg	Val	Met	Gly	Lys	Val	Cys	Thr	Gln	Leu	Leu	Val	Ser	Arg	Pro	Asp		
	290					295					300						
Glu	Glu	Asn	Ile	Ser	Ser	Tyr	Leu	Gln	Leu	Ile	Asp	Lys	Cys	Leu	Ile		
305				310					315					320			
His	Glu	Ala	Phe	Thr	Glu	Thr	Gln	Lys	Lys	Arg	Leu	Leu	Ser	Trp	Lys		
			325					330					335				
Gln	Gln	Val	Gln	Lys	Leu	Phe	Arg	Ser	Phe	Pro	Arg	Lys	Thr	Leu	Leu		
		340					345					350					
Asp	Ile	Ser	Gly	Tyr	Arg	Gln	Gln	Arg	Asn	Arg	Gly	Phe	Gly	Gln	Ser		
	355					360					365						
Asn	Ser	Leu	Pro	Thr	Ala	Gly	Ser	Val	Gly	Gly	Gly	Met	Gly	Arg	Arg		
	370					375					380						
Asn	Pro	Arg	Gln	Tyr	Gln	Ile	Pro	Ser	Arg	Asn	Val	Pro	Ser	Ala	Arg		
385			390					395					400				
Leu	Gly	Leu	Leu	Gly	Thr	Ser	Gly	Phe	Val	Ser	Ser	Asn	Gln	Arg	Asn		
			405					410					415				
Thr	Thr	Ala	Thr	Pro	Thr	Ile	Met	Lys	Gln	Gly	Arg	Gln	Asn	Leu	Trp		
	420					425					430						
Phe	Ala	Asn	Pro	Gly	Gly	Ser	Asn	Ser	Met	Pro	Ser	Arg	Thr	His	Ser		
	435					440					445						
Ser	Val	Gln	Arg	Thr	Arg	Ser	Leu	Pro	Val	His	Thr	Ser	Pro	Gln	Asn		
	450					455					460						
Met	Leu	Met	Phe	Gln	Gln	Pro	Glu	Phe	Gln	Leu	Pro	Val	Thr	Glu	Pro		
465			470					475					480				
Asp	Ile	Asn	Asn	Arg	Leu	Glu	Ser	Leu	Cys	Leu	Ser	Met	Thr	Glu	His		
		485					490					495					
Ala	Leu	Gly	Asp	Gly	Val	Asp	Arg	Thr	Ser	Thr	Ile						
	500					505											

<210> 2723

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 2723

```
ntgatcacgg gggcagccga ctctaagggtg catgtgcacg acctgacagt aaaggagacc
60
atccacatgt ttgggagacca cacaaaccgg gtgaagcgca tcgccacagc gcccatgtgg
120
```

cccaacacat tctggagtgc tgctgaggat gggcttatcc gccagtatga ctttcgagag
 180
 aacagcaaac actcggaggt gctgattgac ctgacagagt actgtggcca gctggtggag
 240
 gccaaagtgc tcaactgtcaa cccccaggac aacaactgcc tggcagttgg ggccagcggg
 300
 cccttcgtga ggctctatga catccgcatg atccataacc acagaaagag catgaagcag
 360
 agcccttcag cgggtgtgca caccttctgt gaccggcaga aacccttcc ggacggtgca
 420
 gccagtatt acgtagcagg tcacctgcca gtgaagcttc ctgactacaa caaccgtttg
 480
 agagtgtgg ttgccaccta tgtgaccttc agccccaatg gcacagagct actagtcaac
 540
 atgggggggg aacaggtcta tttgtttgac ttgacttaca agcagcggcc gtacaccttc
 600
 ctcttgcccta gaaaatgcc ctctcgggg gaagtccaga atggcaagat gtccaccaac
 660
 ggtgtgtcca acggtgtgtc caatggcctg caccttcata gcaatggctt ccggctgccg
 720
 gagagtaggg gacatgtcag cccccaagta gagctaccac catacctgga gcgtgtgaaa
 780
 cagcaagcca atgaggcttt tgcttgccag cagtggaccc aagccattca gctttacagc
 840
 aaggctgtgc agagggcccc tcacaatgcc atgctttatg gaaaccgagc agcagcctac
 900
 atgaagcgca agtgggatgg tgaccactat gatgcctga gggactgcct caaggccatc
 960
 tccttaaacc catgccacct gaaggcacac ttctgcctgg ccgctgcct ctttgagctc
 1020
 aagtatgtgg ctgaagccct ggagtgcctg gacgacttca aagggaaatt tccggagcag
 1080
 gccacagca gcgcttgtga tgcattgggc cgcgacatca cagctgcct cttctctaaa
 1140
 aatgatggtg aggagaagaa gggacctggt ggcggcgccc cagtcgcct ccgcagcacg
 1200
 agccgcaagg gatgcacgcg t
 1221

<210> 2724

<211> 404

<212> PRT

<213> Homo sapiens

<400> 2724

Gly	Ala	Ala	Asp	Ser	Lys	Val	His	Val	His	Asp	Leu	Thr	Val	Lys	Glu
1				5					10					15	
Thr	Ile	His	Met	Phe	Gly	Asp	His	Thr	Asn	Arg	Val	Lys	Arg	Ile	Ala
			20					25					30		
Thr	Ala	Pro	Met	Trp	Pro	Asn	Thr	Phe	Trp	Ser	Ala	Ala	Glu	Asp	Gly
			35				40					45			
Leu	Ile	Arg	Gln	Tyr	Asp	Leu	Arg	Glu	Asn	Ser	Lys	His	Ser	Glu	Val
	50					55					60				
Leu	Ile	Asp	Leu	Thr	Glu	Tyr	Cys	Gly	Gln	Leu	Val	Glu	Ala	Lys	Cys

65					70					75				80	
Leu	Thr	Val	Asn	Pro	Gln	Asp	Asn	Asn	Cys	Leu	Ala	Val	Gly	Ala	Ser
				85					90					95	
Gly	Pro	Phe	Val	Arg	Leu	Tyr	Asp	Ile	Arg	Met	Ile	His	Asn	His	Arg
			100					105					110		
Lys	Ser	Met	Lys	Gln	Ser	Pro	Ser	Ala	Gly	Val	His	Thr	Phe	Cys	Asp
		115					120					125			
Arg	Gln	Lys	Pro	Leu	Pro	Asp	Gly	Ala	Ala	Gln	Tyr	Tyr	Val	Ala	Gly
	130					135					140				
His	Leu	Pro	Val	Lys	Leu	Pro	Asp	Tyr	Asn	Asn	Arg	Leu	Arg	Val	Leu
145					150					155					160
Val	Ala	Thr	Tyr	Val	Thr	Phe	Ser	Pro	Asn	Gly	Thr	Glu	Leu	Leu	Val
			165						170				175		
Asn	Met	Gly	Gly	Glu	Gln	Val	Tyr	Leu	Phe	Asp	Leu	Thr	Tyr	Lys	Gln
		180					185					190			
Arg	Pro	Tyr	Thr	Phe	Leu	Leu	Pro	Arg	Lys	Cys	His	Ser	Ser	Gly	Glu
	195						200					205			
Val	Gln	Asn	Gly	Lys	Met	Ser	Thr	Asn	Gly	Val	Ser	Asn	Gly	Val	Ser
	210					215					220				
Asn	Gly	Leu	His	Leu	His	Ser	Asn	Gly	Phe	Arg	Leu	Pro	Glu	Ser	Arg
225					230					235					240
Gly	His	Val	Ser	Pro	Gln	Val	Glu	Leu	Pro	Pro	Tyr	Leu	Glu	Arg	Val
			245						250					255	
Lys	Gln	Gln	Ala	Asn	Glu	Ala	Phe	Ala	Cys	Gln	Gln	Trp	Thr	Gln	Ala
		260						265					270		
Ile	Gln	Leu	Tyr	Ser	Lys	Ala	Val	Gln	Arg	Ala	Pro	His	Asn	Ala	Met
	275						280					285			
Leu	Tyr	Gly	Asn	Arg	Ala	Ala	Ala	Tyr	Met	Lys	Arg	Lys	Trp	Asp	Gly
	290					295					300				
Asp	His	Tyr	Asp	Ala	Leu	Arg	Asp	Cys	Leu	Lys	Ala	Ile	Ser	Leu	Asn
305					310					315					320
Pro	Cys	His	Leu	Lys	Ala	His	Phe	Arg	Leu	Ala	Arg	Cys	Leu	Phe	Glu
			325						330					335	
Leu	Lys	Tyr	Val	Ala	Glu	Ala	Leu	Glu	Cys	Leu	Asp	Asp	Phe	Lys	Gly
		340						345					350		
Lys	Phe	Pro	Glu	Gln	Ala	His	Ser	Ser	Ala	Cys	Asp	Ala	Leu	Gly	Arg
		355					360					365			
Asp	Ile	Thr	Ala	Ala	Leu	Phe	Ser	Lys	Asn	Asp	Gly	Glu	Glu	Lys	Lys
	370					375					380				
Gly	Pro	Gly	Gly	Gly	Ala	Pro	Val	Arg	Leu	Arg	Ser	Thr	Ser	Arg	Lys
385					390					395					400
Gly	Cys	Thr	Arg												

<210> 2725

<211> 856

<212> DNA

<213> Homo sapiens

<400> 2725

naccggtcca gtgtgccgca ggcacagcac caaccacagc ggccctacct cggccctggc

60

ctgaccccg cggccctgcc cgccctccc tccagcatca tggccagccc aagaaccagg

120

aaggttctta aagaagtcag ggtgcaggat gagaacaacg tttgttttga gtgtggcgcg
180
ttcaatcctc agtgggtcag tgtgacctac ggcattctgga tctgcctgga gtgctcgggg
240
agacaccgcg ggcttggggg tcacctcagc tttgtgctct ctgttactat ggacaagtgg
300
aaggacattg agcttgagaa gatgaaagct ggtgggaatg ctaagttccg agagttcctg
360
gagtctcagg aggattacga tccttgctgg tccttgccagg agaagtacaa cagcagagcc
420
gcggccctct ttagggataa ggtggctcgt ctggccgaag gcagagagtg gtctctggag
480
tcatacctg cccagaactg gacccacact cagcccagga cgctgccgtc catggtgcac
540
cggtagctgc tctcgtggg gccttagtac agtttccact gggctctgaa cttagtagat
600
tgggtttccc acagaattct ccccttcttt gctgttgtga cagctctttt cccagaagtc
660
agtgggaaaa acagcttttt aaaattgcc aacaatata agcttttagt aaatttggac
720
acccatagag ctgtctcaga tagcgcccca ggtaagctcc gcacgccttc caggtgtgca
780
cacagccgtg tctgccgtgg cgctgtggga gttcacatct ccatctgctc accgggggtg
840
tgtctgccct tcacgc
856

<210> 2726

<211> 148

<212> PRT

<213> Homo sapiens

<400> 2726

Met	Ala	Ser	Pro	Arg	Thr	Arg	Lys	Val	Leu	Lys	Glu	Val	Arg	Val	Gln
1				5					10					15	
Asp	Glu	Asn	Asn	Val	Cys	Phe	Glu	Cys	Gly	Ala	Phe	Asn	Pro	Gln	Trp
		20						25				30			
Val	Ser	Val	Thr	Tyr	Gly	Ile	Trp	Ile	Cys	Leu	Glu	Cys	Ser	Gly	Arg
		35					40					45			
His	Arg	Gly	Leu	Gly	Val	His	Leu	Ser	Phe	Val	Arg	Ser	Val	Thr	Met
		50				55					60				
Asp	Lys	Trp	Lys	Asp	Ile	Glu	Leu	Glu	Lys	Met	Lys	Ala	Gly	Gly	Asn
65					70					75				80	
Ala	Lys	Phe	Arg	Glu	Phe	Leu	Glu	Ser	Gln	Glu	Asp	Tyr	Asp	Pro	Cys
			85						90					95	
Trp	Ser	Leu	Gln	Glu	Lys	Tyr	Asn	Ser	Arg	Ala	Ala	Ala	Leu	Phe	Arg
		100							105				110		
Asp	Lys	Val	Val	Ala	Leu	Ala	Glu	Gly	Arg	Glu	Trp	Ser	Leu	Glu	Ser
		115					120					125			
Ser	Pro	Ala	Gln	Asn	Trp	Thr	Pro	Pro	Gln	Pro	Arg	Thr	Leu	Pro	Ser
		130				135					140				
Met	Val	His	Arg												
145															

<210> 2727
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 2727
 ttttttttgc ttttataaac attcaaccaa catgttcttt aataatctct tcttttaaaga
 60
 acaaaataat caagtacatg gcattaagtt aaatgtctct gcacatgaat ttccacctta
 120
 taaatctggg atattaaatt gtgctgtaaa tagatttgta ttttttcttt tttgagtact
 180
 atgatagggt aaatgggatg actataaaaa ggatttggtt ctttttgtct cctggaatga
 240
 catgatgcct ttctagagaa agaaaaattg caggctacag gaaaatgata aaaactactg
 300
 gattcattta gactattcga tttaggaagg tacaaccact tctttaacat caagctaaaa
 360
 gtgggggaaa gtctcagtct cccaggtagg tctcctctca cactgtcctg ggtggcaggc
 420
 gctgtttata catgcccgtc atcgctctgg ctgcactgta gatcatctgc cgacgggaca
 480
 tcccagtaaa tgccatgtgc caatcagtcc ggctgacatt cagtaaaactc ttttcaggga
 540
 cttcacccac tgtcaccaaa aggctgacc acctcagatt atagtcctgg ggagttagac
 600
 tttgagcctg ctgtacaaat tccaaaggca ctgggtgtggc ttgtgtaaatt gtttctagat
 660
 gaatgccatg gacaggatct tcaaccacca aacaaccaat gtcaaaccat ttgtcaggca
 720
 gcaattctgc aatgaagttt tctactgaca cagctgtctg tttttcatgg atcacccag
 780
 ttgcagcaa gctatctatc cgttcctgag caccttttaa tccagctgca tagccactg
 840
 gttgtggggc aatattggac tgtccagcct ccctacaac cacagctagg ccgaagacct
 900
 cctggaaggc atctcggaca gcagccactt tcaactcttt atttgaggtc actacaatat
 960
 ccagttcacc tccagatttg atataggagg ccatgccagg gtccagcgtt gtaatcatgc
 1020
 tttctactga atgttttgc ttatcaagca cagacttcac cataggatcc ccagccacac
 1080
 ccttaataaa accccagatt ccaccagcag atgcttcat
 1119

<210> 2728
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 2728
 Met Val Lys Ser Val Leu Asp Lys Thr Lys His Ser Val Glu Ser Met
 1 5 10 15
 Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly

			20						25						30			
Glu	Leu	Asp	Ile	Val	Val	Thr	Ser	Asn	Lys	Glu	Val	Lys	Val	Ala	Ala			
		35					40					45						
Val	Arg	Asp	Ala	Phe	Gln	Glu	Val	Phe	Gly	Leu	Ala	Val	Val	Val	Gly			
	50					55					60							
Glu	Ala	Gly	Gln	Ser	Asn	Ile	Ala	Pro	Gln	Pro	Val	Gly	Tyr	Ala	Ala			
65					70					75					80			
Gly	Leu	Lys	Gly	Ala	Gln	Glu	Arg	Ile	Asp	Ser	Leu	Arg	Arg	Thr	Gly			
			85						90					95				
Val	Ile	His	Glu	Lys	Gln	Thr	Ala	Val	Ser	Val	Glu	Asn	Phe	Ile	Ala			
			100					105					110					
Glu	Leu	Leu	Pro	Asp	Lys	Trp	Phe	Asp	Ile	Gly	Cys	Leu	Val	Val	Glu			
		115					120					125						
Asp	Pro	Val	His	Gly	Ile	His	Leu	Glu	Thr	Phe	Thr	Gln	Ala	Thr	Pro			
	130					135					140							
Val	Pro	Leu	Glu	Phe	Val	Gln	Gln	Ala	Gln	Ser	Leu	Thr	Pro	Gln	Asp			
145					150					155					160			
Tyr	Asn	Leu	Arg	Trp	Ser	Gly	Leu	Leu	Val	Thr	Val	Gly	Glu	Val	Leu			
			165						170					175				
Glu	Lys	Ser	Leu	Leu	Asn	Val	Ser	Arg	Thr	Asp	Trp	His	Met	Ala	Phe			
			180					185					190					
Thr	Gly	Met	Ser	Arg	Arg	Gln	Met	Ile	Tyr	Ser	Ala	Ala	Arg	Ala	Ile			
		195					200					205						
Ala	Gly	Met	Tyr	Lys	Gln	Arg	Leu	Pro	Pro	Arg	Thr	Val						
	210					215					220							

<210> 2729

<211> 393

<212> DNA

<213> Homo sapiens

<400> 2729

```

nnggtggcac ggatcgtagg agccaaatgt ttgttttctt tcttatccct tcgagaccaa
60
atgcagcccc agcagtgggtg aggcactact ttcttgaaga gttgtgcac ccatgtaggtc
120
agctgctctg ccacgagatc ttctgagaag cacgtgaatt ctgctgactc tccaccctcc
180
agtctctctt cctcttccat actaagggcc tggcttgacc agtgtgcaga agacttccga
240
gagccccctc acttccccctg cttacagaaa ctgctggatt atctcacacg gatgatgccg
300
ggctctgacc cagaaagaag agcacaaaat cttcttgagc agtttcagaa gcaagaagtg
360
gaaactgaca atgggcttcc caacacgatc tcc
393

```

<210> 2730

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2730

Val Ser Cys Ser Ala Thr Arg Ser Ser Glu Lys His Val Asn Ser Ala

```

      1             5             10             15
Asp Ser Pro Pro Ser Ser Ser Ser Ser Ser Ser Ile Leu Arg Ala Trp
      20             25             30
Leu Asp Gln Cys Ala Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys
      35             40             45
Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
      50             55             60
Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
      65             70             75             80
Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
      85             90

```

<210> 2731

<211> 447

<212> DNA

<213> Homo sapiens

<400> 2731

```

nccgctccga cctgaaagca cgtccacctc tgcggctcct acctgggtgc aatcgagtta
60
aatggctgat aagcagatca gcctgccagc caagctcatc aatggcggca tcgcgggctg
120
atcgggtgtca cctgcgtgtt tcccatcgac ctggccaaga ccaggctgca gaaccagcag
180
aacggccagc gcgtgtacac gagcatgtcc gactgcctca tcaagaccgt ccgctccgag
240
ggctacttcg gcatgtaccg gggagctgct gtgaacttga ccctcgtcac ccccgagaag
300
gccatcaagc tggcagccaa cgacttcttc cgacatcagc tctctaagga cgggcagaag
360
ctgaccttgc ttaaagagat gctggcgggc tgtggggctg gcacctgcca ggtgatcgtg
420
accacgcccc tggagatgct gaagatc
447

```

<210> 2732

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2732

```

Ala Asp Gln Pro Ala Ser Gln Ala His Gln Trp Arg His Arg Gly Leu
      1             5             10             15
Ile Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala Lys Thr Arg Leu
      20             25             30
Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
      35             40             45
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
      50             55             60
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
      65             70             75             80
Ala Ala Asn Asp Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
      85             90             95
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys

```

	100		105		110
Gln	Val	Ile	Val	Thr	Thr
			Pro	Met	Glu
				Met	Leu
				Lys	Ile
	115		120		125

<210> 2733
 <211> 3619
 <212> DNA
 <213> Homo sapiens

<400> 2733
 gaattctgcc gcaagttccg cgtgagtgcc tggtccttcc acccccatgg ggcgagactg
 60
 tcgggcatgg gtatgggggtg ccagaggggt ctggccacct ggggcttgct gtccctgagag
 120
 cccagcacc catgtcacc ccaacagctg gactgcccgc tggccatgga gcggatcaag
 180
 gaggaccggc ccattcaccat caaggacgac aagggcaacc tcaaccgctg catcgagac
 240
 gtggtctcgc tcttcattcac ggtcatggac aagctgcgcc tggcggagct gacggtggac
 300
 gagttcctag cttcgggctt tgactccgag tccgaatccg agtccgaaaa ttctccacaa
 360
 gcggagacac gggaagcacg cgaggctgcc cggagtccgg ataagccggg cgggagcccc
 420
 tcggccagcc ggcgtaaagg ccgtgcctct gagcaciaag accagctctc tcggctgaag
 480
 gacagagacc ccgagttcta caagttcctg caggagaatg accagagcct gctaaacttc
 540
 agcgactcgg acagctctga ggaggaagag gggccgttcc actccctgcc agatgtgctg
 600
 gaggaagcca gtgaggagga ggatggagcg gaggaaggag aagatgggga cagagtcccc
 660
 agagggtcga aggggaagaa gaattctgtt cctgtgaccg tcgccatggt tgagagatgg
 720
 aagcaggcag caaagcaacg cctcactcca aagctgttcc atgaagtggg acaggcgctc
 780
 cgagcagctg tggccaccac ccgaggggac caggaaagtg ctgaggccaa caaattccag
 840
 gtcacggaca gtgctgcatt caatgctctg gttaccttct gcatcagaga cctcattggc
 900
 tgtctccaga agctgctgtt tggaaagggt gcaaaggata gcagcaggat gctgcagccg
 960
 tccagcagcc cgctctgggg gaagcttcgt gtggacatca aggettacct gggctcggcc
 1020
 atacagctgg tgcctgtct gtcggagacg acggtgttgg cggccgtgct gcggcacatc
 1080
 agcgtgctgg tgccctgctt cctgaccttc cccaagcagt gccgcatgct gctcaagaga
 1140
 atggtggtcg tatggagcac tggggaggag tctctgcggg tgctggcttt cctggtcctc
 1200
 agcagagtct gccggcacia gaaggacact ttccttggcc ccgtcctcaa gcaaatgtac
 1260
 atcacgtatg tgaggaactg caagttcacc tcgcctgggt ccctccctt catcagtttc
 1320

atgcagtgga ccttgacgga gctgctggcc ctggagccgg gtgtggccta ccagcacgcc
 1380
 ttctcttaca tccgccagct cgccatacac ctgcgcaacg ccatgaccac ccgcaagaag
 1440
 gaaacatacc agtctgtgta caactggcag tatgtgcact gcctcttcct gtggtgccgg
 1500
 gtcctgagca ctgcggggccc cagcgaagcc ctccagccct tgggtctaccc ccttgcccaa
 1560
 gtcattcattg gctgtatcaa gtcattcccc actgcccgtt tctaccgct gcgaatgcac
 1620
 tgcattcgtg ccctgacgct gctctcgggg agctcggggg ccttcattccc ggtgctgcct
 1680
 ttcatcctgg agatgttcca gcaggctgac ttcaacagga agccagggcg catgagctcc
 1740
 aagcccatca acttctccgt gatcctgaag ctgtccaatg tcaacctgca ggagaaggcg
 1800
 taccgggacg gcctgggtgga gcagctgtac gacctcacc tggagtacct gcacagccag
 1860
 gcacactgca tcggcttccc ggagctggtg ctgcctgtgg tcctgcagct gaagtcgttc
 1920
 ctccgggagt gcaagggtggc caactactgc cggcagggtgc agcagctgct tgggaagggt
 1980
 caggagaact cggcatacat ctgcagccgc cgccagaggg tttccttcgg cgtctctgag
 2040
 cagcaggcag tggaagcctg ggagaagctg acccggaag aggggacacc cctgaccttg
 2100
 tactacagcc actggcgcaa gctgcgtgac cgggagatcc agctggagat cagtggcaaa
 2160
 gagcgggtgc ggctcggcga ggggacctgg ctggaagacc tgaacttccc tgagatcaaa
 2220
 cgaaggaaga tggctgacag gaaggatgag gacaggaagc aatttaaaga cctctttgac
 2280
 ctgaacagct ctgaagagga cgacaccgag ggattcttgg aaagagggat actggggccc
 2340
 ctgagcactc ggcatggggt ggaagacgat gaagaggacg aggaggaggg cgaggaggac
 2400
 agcagcaact cggagggtga atggtcttgg gatggagacc cagacgcaga ggccggactg
 2460
 gcccctgggg agctgcagca gctggcccag gggccggagg acgagctgga ggatctgcag
 2520
 ctctcagagg acgactgagg cagcccatct ggggggcctg taggggctgc cgggctggtg
 2580
 gccagtgttt ccacctccct ggcagtcagg cctagaggct ggcgtctgtg cagttggggg
 2640
 aggcagtaga cacgggacag gctttattat ttatttttca gcatgaaaga ccaaactgat
 2700
 cgagagctgg gctgggctgg gctgggtgtg ctgctgaagc cccagagctg tgggctgctg
 2760
 aagtcagctc cgcgggggag ctgaccctga cgtcagcaga ccgagaccag tcccagttcc
 2820
 agggggaggg ctgcaggccc ctggcccctt ccaccacctc tgccctccgt ctgcagacct
 2880
 cgtccatctg caccaggctc tgccttcaact cccccaagtc tttggaaatt tgttcttttc
 2940

ctttgaagtc acattttctt ttaaaatttt ttgttttgca tccgaaaccg aaagaaataa
 3000
 agcgggtggga ggcaggtcca ttgtgttgag tgggtgggaag gttgccgtcc tggctgcagg
 3060
 acgcctctcg gaaagagatg ttcacgtccc agtgggtgtg gactcttctc ttcattgatac
 3120
 ggatgtgcgg accatcctcc tgcttcaagc ctgccgccgc cacaggtggg gccactcccg
 3180
 tcgctgtcac catcgctggc agagaagctg ggagttcgct ccttcttcag gttccggggc
 3240
 gcaggcaggg cgactgtcct cttgtctgcc agccgcaccg gttcaccggg gaggatatcc
 3300
 ggcagcccgg gcagtcgcag atcggaggat gcacctgcag gatccccttg gacataagcg
 3360
 tcttcagact tttccctttg tggcggatgc tgcgcttcca gtccctggcc gtctcgcggg
 3420
 cgctgacgaa ctggaactcg ttgggcgtta gccactcgcc gcggtggcgg atggacgggg
 3480
 ccttnctgcc cttgcagagt ttgcgcacgt aaagcagcgc gcggttgggc ccgcactcca
 3540
 cctcgatnca cggctcgccg ttntccagca gcggctggaa atccggggcc gcggggcgcg
 3600
 tggccgagaa gcgctcgag
 3619

<210> 2734

<211> 790

<212> PRT

<213> Homo sapiens

<400> 2734

Met	Glu	Arg	Ile	Lys	Glu	Asp	Arg	Pro	Ile	Thr	Ile	Lys	Asp	Asp	Lys
1				5					10				15		
Gly	Asn	Leu	Asn	Arg	Cys	Ile	Ala	Asp	Val	Val	Ser	Leu	Phe	Ile	Thr
			20					25					30		
Val	Met	Asp	Lys	Leu	Arg	Leu	Ala	Glu	Leu	Thr	Val	Asp	Glu	Phe	Leu
			35				40					45			
Ala	Ser	Gly	Phe	Asp	Ser	Glu	Ser	Glu	Ser	Glu	Ser	Glu	Asn	Ser	Pro
			50			55					60				
Gln	Ala	Glu	Thr	Arg	Glu	Ala	Arg	Glu	Ala	Ala	Arg	Ser	Pro	Asp	Lys
65					70				75					80	
Pro	Gly	Gly	Ser	Pro	Ser	Ala	Ser	Arg	Arg	Lys	Gly	Arg	Ala	Ser	Glu
			85					90						95	
His	Lys	Asp	Gln	Leu	Ser	Arg	Leu	Lys	Asp	Arg	Asp	Pro	Glu	Phe	Tyr
			100					105				110			
Lys	Phe	Leu	Gln	Glu	Asn	Asp	Gln	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ser
			115				120					125			
Asp	Ser	Ser	Glu	Glu	Glu	Glu	Gly	Pro	Phe	His	Ser	Leu	Pro	Asp	Val
			130			135					140				
Leu	Glu	Glu	Ala	Ser	Glu	Glu	Glu	Asp	Gly	Ala	Glu	Glu	Gly	Glu	Asp
145					150					155				160	
Gly	Asp	Arg	Val	Pro	Arg	Gly	Leu	Lys	Gly	Lys	Lys	Asn	Ser	Val	Pro
				165				170						175	
Val	Thr	Val	Ala	Met	Val	Glu	Arg	Trp	Lys	Gln	Ala	Ala	Lys	Gln	Arg

				180					185					190		
Leu	Thr	Pro	Lys	Leu	Phe	His	Glu	Val	Val	Gln	Ala	Phe	Arg	Ala	Ala	
		195					200					205				
Val	Ala	Thr	Thr	Arg	Gly	Asp	Gln	Glu	Ser	Ala	Glu	Ala	Asn	Lys	Phe	
	210					215					220					
Gln	Val	Thr	Asp	Ser	Ala	Ala	Phe	Asn	Ala	Leu	Val	Thr	Phe	Cys	Ile	
225					230					235				240		
Arg	Asp	Leu	Ile	Gly	Cys	Leu	Gln	Lys	Leu	Leu	Phe	Gly	Lys	Val	Ala	
				245					250					255		
Lys	Asp	Ser	Ser	Arg	Met	Leu	Gln	Pro	Ser	Ser	Ser	Pro	Leu	Trp	Gly	
			260					265					270			
Lys	Leu	Arg	Val	Asp	Ile	Lys	Ala	Tyr	Leu	Gly	Ser	Ala	Ile	Gln	Leu	
	275						280					285				
Val	Ser	Cys	Leu	Ser	Glu	Thr	Thr	Val	Leu	Ala	Ala	Val	Leu	Arg	His	
	290					295					300					
Ile	Ser	Val	Leu	Val	Pro	Cys	Phe	Leu	Thr	Phe	Pro	Lys	Gln	Cys	Arg	
305					310					315					320	
Met	Leu	Leu	Lys	Arg	Met	Val	Val	Val	Trp	Ser	Thr	Gly	Glu	Glu	Ser	
				325					330					335		
Leu	Arg	Val	Leu	Ala	Phe	Leu	Val	Leu	Ser	Arg	Val	Cys	Arg	His	Lys	
		340						345					350			
Lys	Asp	Thr	Phe	Leu	Gly	Pro	Val	Leu	Lys	Gln	Met	Tyr	Ile	Thr	Tyr	
	355					360					365					
Val	Arg	Asn	Cys	Lys	Phe	Thr	Ser	Pro	Gly	Ala	Leu	Pro	Phe	Ile	Ser	
	370					375					380					
Phe	Met	Gln	Trp	Thr	Leu	Thr	Glu	Leu	Leu	Ala	Leu	Glu	Pro	Gly	Val	
385					390					395					400	
Ala	Tyr	Gln	His	Ala	Phe	Leu	Tyr	Ile	Arg	Gln	Leu	Ala	Ile	His	Leu	
			405						410					415		
Arg	Asn	Ala	Met	Thr	Thr	Arg	Lys	Lys	Glu	Thr	Tyr	Gln	Ser	Val	Tyr	
		420						425					430			
Asn	Trp	Gln	Tyr	Val	His	Cys	Leu	Phe	Leu	Trp	Cys	Arg	Val	Leu	Ser	
	435					440					445					
Thr	Ala	Gly	Pro	Ser	Glu	Ala	Leu	Gln	Pro	Leu	Val	Tyr	Pro	Leu	Ala	
	450					455					460					
Gln	Val	Ile	Ile	Gly	Cys	Ile	Lys	Leu	Ile	Pro	Thr	Ala	Arg	Phe	Tyr	
465					470					475					480	
Pro	Leu	Arg	Met	His	Cys	Ile	Arg	Ala	Leu	Thr	Leu	Leu	Ser	Gly	Ser	
			485						490					495		
Ser	Gly	Ala	Phe	Ile	Pro	Val	Leu	Pro	Phe	Ile	Leu	Glu	Met	Phe	Gln	
		500						505					510			
Gln	Val	Asp	Phe	Asn	Arg	Lys	Pro	Gly	Arg	Met	Ser	Ser	Lys	Pro	Ile	
	515					520										

610	615	620
Glu Gln Gln Ala Val	Glu Ala Trp Glu Lys Leu Thr Arg Glu Glu Gly	
625	630	635
Thr Pro Leu Thr Leu Tyr Tyr Ser His Trp Arg Lys Leu Arg Asp Arg		640
	645	650
Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Val Arg Leu Gly Glu		655
	660	665
Gly Thr Trp Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys		670
	675	680
Met Ala Asp Arg Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe		685
	690	695
Asp Leu Asn Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Leu Glu Arg		700
705	710	715
Gly Ile Leu Gly Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu		720
	725	730
Glu Asp Glu Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu		735
	740	745
Trp Ser Trp Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly		750
	755	760
Glu Leu Gln Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu		765
770	775	780
Gln Leu Ser Glu Asp Asp		
785	790	

<210> 2735

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 2735

```

nncccgggcg ggcgcggggc gcgatggcag cggcggagca gggctgagcc cgctgcccgc
60
ccgcagttcc cggccccgct ggccccagtc atggcgaagc agtacgatgt gctgttccgg
120
ctgctgctga tcggggactc cgggggtgggc aagacctgcc tgctgtgccg cttcaccgac
180
aacgagttcc actcctcgca catctccacc atcgggtgtg actttaagat gaagaccata
240
gaggtagacg gcatcaaagt gcggatacag atctgggaca ctgcagggca ggagagatac
300
cagaccatca caaagcagta ctatcggcgg gcccagggga tatttttggt ctatgacatt
360
agcagcgagc gctcttacca gcacatcatg aagtgggtca gtgacgtgga tgagtacgca
420
ccagaaggcg tccagaagat ccttattggg aataaggctg atgaggagca gaaacggcag
480
gtgggaagag agcaagggca gcagaaatgt ccttctcttc agctggcgaa ggagtatggc
540
atggacttct atgaacaag tgctgcacc aacctcaaca ttaaagagtc attcacgcgt
600
ctgacagagc tgggtctgca ggcccatagg aaggagctgg aaggcctccg gatgcgtgcc
660
agcaatgagt tggcactggc agagctggag gaggaggagg gcaaaccgga gggcccagcg
720

```

aactcttcga aaacctgctg gtgctgagtc ctgtgtgggg caccacacac gacaccctc
780
ttccctcagg agggccgtgg gcagacaggg gagccggggc tttgccctgc tgcgtgcctc
840
tcgtgtgatg accctattga gtatcagtag ccactactcc ccctgcctgg ccctgagagc
900
ggctctgctg tcatctcaag cagccccctgt cccagccccg tccaccctgg agtgggtcttc
960
ttcagcctgt tccccagcc acaggcctgc tacgaccccc acgatgtgcc gcaagcactg
1020
tctcaccatc ccgcacccac cagacaacag ccagggctgg agtccaggcc actttcagct
1080
gtccttttct ccgtgcatcg tgtctcttct ctgctttttc tctcttcccc cacttctctt
1140
tctctgaccc ctccccctcg gtgcgtttcg tatcaaagct cctcaaaccg cgccccccgt
1200
gtgtcctgct gtgtgcagct cgctctttcc ttccttctta agctatccaa ggggatggac
1260
ccaggctcgt ggggaggttc cacccttgga tccaggaaga accctccacc ctgcctcgtg
1320
ggtgggcca aaagctacagg gtgcttcttc ctcttcccc accccactg tccctcatgt
1380
gccatgggcc tgcctcccca gtgacctgcg aaagtggagc atcgaggtag gagggaaacg
1440
gcaaccaggg agtccctcag cctggggctg ccctacctct acccattccc cgaccagagc
1500
tttgcccttg cttggctgcc cgctgcctc tttggggaac tgagctcgga ggcagggtgct
1560
tcagagaagg aaacaaaatg aggggtggca gggataaaaa gtcacctcca ttctctacct
1620
cccatgcagc atgaacacaa tttctctcca cctggctccc aaattt
1666

<210> 2736

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2736

Met	Ala	Lys	Gln	Tyr	Asp	Val	Leu	Phe	Arg	Leu	Leu	Leu	Ile	Gly	Asp
1			5					10						15	
Ser	Gly	Val	Gly	Lys	Thr	Cys	Leu	Leu	Cys	Arg	Phe	Thr	Asp	Asn	Glu
		20					25					30			
Phe	His	Ser	Ser	His	Ile	Ser	Thr	Ile	Gly	Val	Asp	Phe	Lys	Met	Lys
		35				40					45				
Thr	Ile	Glu	Val	Asp	Gly	Ile	Lys	Val	Arg	Ile	Gln	Ile	Trp	Asp	Thr
	50					55				60					
Ala	Gly	Gln	Glu	Arg	Tyr	Gln	Thr	Ile	Thr	Lys	Gln	Tyr	Tyr	Arg	Arg
65					70				75					80	
Ala	Gln	Gly	Ile	Phe	Leu	Val	Tyr	Asp	Ile	Ser	Ser	Glu	Arg	Ser	Tyr
			85					90					95		
Gln	His	Ile	Met	Lys	Trp	Val	Ser	Asp	Val	Asp	Glu	Tyr	Ala	Pro	Glu
		100					105						110		
Gly	Val	Gln	Lys	Ile	Leu	Ile	Gly	Asn	Lys	Ala	Asp	Glu	Glu	Gln	Lys

115						120						125					
Arg	Gln	Val	Gly	Arg	Glu	Gln	Gly	Gln	Gln	Lys	Cys	Pro	Ser	Leu	Gln		
130						135						140					
Leu	Ala	Lys	Glu	Tyr	Gly	Met	Asp	Phe	Tyr	Glu	Thr	Ser	Ala	Cys	Thr		
145						150						155					
Asn	Leu	Asn	Ile	Lys	Glu	Ser	Phe	Thr	Arg	Leu	Thr	Glu	Leu	Val	Leu		
165						170						175					
Gln	Ala	His	Arg	Lys	Glu	Leu	Glu	Gly	Leu	Arg	Met	Arg	Ala	Ser	Asn		
180						185						190					
Glu	Leu	Ala	Leu	Ala	Glu	Leu	Glu	Glu	Glu	Gly	Lys	Pro	Glu	Gly			
195						200						205					
Pro	Ala	Asn	Ser	Ser	Lys	Thr	Cys	Trp	Cys								
210						215											

```
<210> 2737
<211> 898
<212> DNA
<213> Homo sapiens
```

```

<400> 2737
nnaccggtat ggcgccacctg cgccggggttt ggcggccgat gtcaccggca ccgcatccgc
60
cgagcggagg agcacgctga ggagctgcgg aacaagattg tggaccagtg tgagaggctg
120
cagttacaga gtgctgccat caccaagtat gtggcggacg tcctgccggg gaagaatcaa
180
agagcagtga gcatggccag tgcagcgagg gaactgggta tccagcgggt gagtctgggtg
240
aggagtcttt gcgagagcga ggagcagcgg ttactggaac aggtgcatgg cgaagaggag
300
cgggcccacc agagcatcct gacacagcgg gtgcactggg ccgaggcgct gcagaaactt
360
gacaccatcc gcactggcct ggtgggcatg cttactcacc tggatgacct ccagctgatt
420
cagaaggagc aagagatddd cgagaggacc gaagaagcag agggcatttt ggatccccag
480
gagtcggaaa tggttaaactt taatgagaag tgcactcgga gccactact gacccaactc
540
tgggcaacgg cgggttcttg gtctctctca ggcacagagg acatacggat cgatgagagg
600
acagtcagcc ccttcttgca attgtcagat gatcgaaaga ccctgacctc agcaccaaga
660
agtcaaagggt gtgcagatgg cccggagcgc ttcgaccact ggcccaatgc cctggctgcc
720
acctctctcc agaatgggct ccatgcctgg atggtgaatg tccagaacag ttgtgcctat
780
aagggtgggcg tggcttcagg ccacctgcc cgcaagggtt ctggcagtga ctgccgtctg
840
ggccacaatg ccttctcctg ggtcttctct cgctatgac aggagtttcg tttctcac
898

```

```
<210> 2738
<211> 299
<212> PRT
```

<213> Homo sapiens

<400> 2738

```

Xaa Pro Val Cys Ala Thr Cys Ala Gly Phe Gly Gly Arg Cys His Arg
 1           5           10           15
His Arg Ile Arg Arg Ala Glu Glu His Ala Glu Glu Leu Arg Asn Lys
          20          25          30
Ile Val Asp Gln Cys Glu Arg Leu Gln Leu Gln Ser Ala Ala Ile Thr
          35          40          45
Lys Tyr Val Ala Asp Val Leu Pro Gly Lys Asn Gln Arg Ala Val Ser
          50          55          60
Met Ala Ser Ala Ala Arg Glu Leu Val Ile Gln Arg Leu Ser Leu Val
          65          70          75          80
Arg Ser Leu Cys Glu Ser Glu Glu Gln Arg Leu Leu Glu Gln Val His
          85          90          95
Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
          100         105         110
Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
          115         120         125
Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
          130         135         140
Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
          145         150         155         160
Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
          165         170         175
Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
          180         185         190
Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
          195         200         205
Ser Asp Asp Arg Lys Thr Leu Thr Ser Ala Pro Arg Ser Gln Arg Cys
          210         215         220
Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala Ala
          225         230         235         240
Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln Asn
          245         250         255
Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg Lys
          260         265         270
Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp Val
          275         280         285
Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser
          290         295

```

<210> 2739

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 2739

```

gagagccgcc gagagtgggg ggcgatggcg aagctccggg tggcttacga gtacacggaa
60
gccgaggaca agagcatccg gctcggcttg tttctcatca tctccggcgt cgtgtcgctc
120
ttcatcttcg gcttctgctg gctgagtcgc gcgctgcagg atctgcaagc cacggaggcc
180

```

aattgcacgg tgctgtcggg gcagcagatc ggcgaggtgt tcgagtgcac cttcacctgt
240
ggcgccgact gcagggggcac ctgcgagtac ccctgcgtcc aggtctacgt gaacaactct
300
gagtccaact ctagggcgct gctgcacagc gacgagcacc agctcctgac caaccccaag
360
tgctcctata tccctccctg taagagagaa aatcagaaga atttggaaag tgatcatgaat
420
tggcaacagt actggaaaga tgagattggg tcccagccat ttacttgcta ttttaaatcaa
480
catcaaagac cagatgatgt gcttctgcat cgcactcatg atgagattgt cctcctgcat
540
tgcttctctt ggcccctggg gacatttctg gtgggcgttc tcattgtggg cctgaccatc
600
tgtgccaaga gcttggcggg caaggcggaa gccatgaaga agcgcaagtt ctcttaaagg
660
ggaaggaggc ttgtagaaag caaagtacag aagctgtact catcggcacg cgtccacctg
720
cggaacctgt gtttcttggc gcaggagatg gacagggcca cgacagggtc ctgagagggt
780
catccctcag tggcaacaga aacaggcaca actggaagac ttggaacctc aaagcttgta
840
ttccatctgc tgtagcaatg gctaaagggt caagatctta gctgtatgga gtaactatct
900
cagaaaacc tataagaagt tcattttctt tcaaaagtaa cagtatatta tttgtacagt
960
gtagtataca aaccattatg atttatgcta cttaaaaata ttaaaataga gtggtctgtg
1020
ttattttcta tttccttttt tatgcttaga acaccagggt tttaaaaaaa aaaaaagggtg
1080
aggacatctg ggtctcattt gcttctgcta gggttaaactt ttacttgaca acaaggattc
1140
ctgctgaagt ctgaacctta ctgtgtaacc ctcagtttcc actattaaag agtatctttt
1200
gacgtcctgc ttggaaaatg aatagtatac tggtaactca gtctccagtc acctctgtgt
1260
ctcttaagca agagattcta aaagattggg aaaacatata ctccaaaacc tgcctttgcc
1320
taaccattat ttttcaccag attacttctt aagagaggga ggtgattctg aagaaggctt
1380
ctatctcaaa aagcactggg cttccttatt catctgttct tgttggtttt gacggagtta
1440
aaaaagtttg tgtgcaatac aatataaatg atgtgaagga cactcttaaa aaaaaaaaaa
1500
a
1501

<210> 2740

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2740

Glu Ser Arg Arg Glu Trp Gly Ala Met Ala Lys Leu Arg Val Ala Tyr

```

      1           5           10           15
Glu Tyr Thr Glu Ala Glu Asp Lys Ser Ile Arg Leu Gly Leu Phe Leu
      20           25           30
Ile Ile Ser Gly Val Val Ser Leu Phe Ile Phe Gly Phe Cys Trp Leu
      35           40           45
Ser Pro Ala Leu Gln Asp Leu Gln Ala Thr Glu Ala Asn Cys Thr Val
      50           55           60
Leu Ser Val Gln Gln Ile Gly Glu Val Phe Glu Cys Thr Phe Thr Cys
      65           70           75           80
Gly Ala Asp Cys Arg Gly Thr Ser Gln Tyr Pro Cys Val Gln Val Tyr
      85           90           95
Val Asn Asn Ser Glu Ser Asn Ser Arg Ala Leu Leu His Ser Asp Glu
      100          105          110
His Gln Leu Thr Asn Pro Lys Cys Ser Tyr Ile Pro Pro Cys Lys
      115          120          125
Arg Glu Asn Gln Lys Asn Leu Glu Ser Val Met Asn Trp Gln Gln Tyr
      130          135          140
Trp Lys Asp Glu Ile Gly Ser Gln Pro Phe Thr Cys Tyr Phe Asn Gln
      145          150          155          160
His Gln Arg Pro Asp Asp Val Leu Leu His Arg Thr His Asp Glu Ile
      165          170          175
Val Leu Leu His Cys Phe Leu Trp Pro Leu Val Thr Phe Val Val Gly
      180          185          190
Val Leu Ile Val Val Leu Thr Ile Cys Ala Lys Ser Leu Ala Val Lys
      195          200          205
Ala Glu Ala Met Lys Lys Arg Lys Phe Ser
      210          215

```

<210> 2741

<211> 1487

<212> DNA

<213> Homo sapiens

<400> 2741

```

aaggctcgag ggaaagtgag tgagatcatc aacaatgcca ttgtgcacta ccgagatgac
60
ttggatctgc agaacctcat tgattttggc cagaaaaagt ttagctgctg tggagggatt
120
tcctacaagg actggtctca gaacatgtat ttcaactgct cagaagacaa cccagtcga
180
gagcgtgct ctgtgctta ctctgttgct ttgcctactc ctgaccaggc agtcatcaac
240
actatgtgtg gccaaaggtat gcaggccttt gactacttgg aagctagcaa agtcatctac
300
accaatggct gtattgacaa gttggtcaac tggatacaca gcaacctatt cttacttgg
360
ggtgtggctc taggcctggc catccccag ctggtgggaa ttctgctgtc ccagatccta
420
gtgaatcaga tcaaagatca gatcaagcta cagctctaca accagcagca ccgggctgac
480
ccatgggtact gagaatccat cctgcacctc ctcccatgg aaactggcaa gcctcataaa
540
cgaacagcag tgggtgctga aagcagcacc aaatggagat ttggattcca gccccag
600

```

gacagcccag tgggaagaag caaactccag atgggcagaa ggcagggtgc acagggtggct
 660
 ccagtctcag gaggatgcgc ctctctccc ccatcccagc cctcagcatt gtgccagagt
 720
 gataccctta agtgtttggg tttatgtttt cagttttgtt tgggaaacag cagttgcaca
 780
 gagagttggg ggtactgctg ctgccttttc accgaggcac tgccaccacc agctctagca
 840
 gggatgctcc tgagcttggc ggacatactt agatcctaac gtgccagtga gacctggctg
 900
 tggagagtag cactggcagc cctgcctgga ctccacttgg catgatacca gctccagaag
 960
 ggaagggagt ggagcaggca gtgaggagag agcctggggg tcggctgggg acagccgtat
 1020
 gtgctaggta ggagtggagg gagatatgtt taccaaatgc ctgtcctgcc atcctcccag
 1080
 gtagtcagag tgagctacat cctgccccgc cttcatttcc atggaaacat ggcagctagg
 1140
 acacggggta tacaacagca gccaaattct tccccacctc cttacttcg aaaaaaagtt
 1200
 tggaaccctg gtccctatac tctgcagtca gaagtgggac tgagccatac atgcccttga
 1260
 attcctccct gtctggccct ccctctccag caagcagggt tttctttaac ttggcagtgt
 1320
 gcagaggaga agtggttaaca cccccacccc attccctgc atcggagctc agtattccta
 1380
 cagggtaaga ggtaggaatc ttgctgggac gaggggagcc agaagtggca ataaaagcgt
 1440
 gttgacctgg gcaaaaaaaaa aaaaaaaaaa aaagaaaaaa aaaaaaa
 1487

<210> 2742

<211> 163

<212> PRT

<213> Homo sapiens

<400> 2742

Lys	Ala	Arg	Gly	Lys	Val	Ser	Glu	Ile	Ile	Asn	Asn	Ala	Ile	Val	His
1				5					10					15	
Tyr	Arg	Asp	Asp	Leu	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Phe	Gly	Gln	Lys
		20						25					30		
Lys	Phe	Ser	Cys	Cys	Gly	Gly	Ile	Ser	Tyr	Lys	Asp	Trp	Ser	Gln	Asn
	35					40						45			
Met	Tyr	Phe	Asn	Cys	Ser	Glu	Asp	Asn	Pro	Ser	Arg	Glu	Arg	Cys	Ser
	50					55					60				
Val	Pro	Tyr	Ser	Cys	Cys	Leu	Pro	Thr	Pro	Asp	Gln	Ala	Val	Ile	Asn
65					70					75				80	
Thr	Met	Cys	Gly	Gln	Gly	Met	Gln	Ala	Phe	Asp	Tyr	Leu	Glu	Ala	Ser
				85				90						95	
Lys	Val	Ile	Tyr	Thr	Asn	Gly	Cys	Ile	Asp	Lys	Leu	Val	Asn	Trp	Ile
			100					105					110		
His	Ser	Asn	Leu	Phe	Leu	Leu	Gly	Gly	Val	Ala	Leu	Gly	Leu	Ala	Ile
		115					120					125			
Pro	Gln	Leu	Val	Gly	Ile	Leu	Leu	Ser	Gln	Ile	Leu	Val	Asn	Gln	Ile

130 135 140
 Lys Asp Gln Ile Lys Leu Gln Leu Tyr Asn Gln Gln His Arg Ala Asp
 145 150 155 160
 Pro Trp Tyr

<210> 2743
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 2743
 ngaattctcc cctcggcctc ccgagactcg ggtgtcctgt ctccccccgg agcctcccaa
 60
 gactccgggtg tccagtctcc gcccgagacc tccagagact ggagtgtccc atctccgccc
 120
 acagcctccc aagactcagg tgtccagtct ccacctggag cctccagaga ctggagtgtc
 180
 ccatctccgc ccagagccta ccaagactga ggtgtccagt ctccacctgg agcctcccca
 240
 gactggagtg gcccatctct acctggagcc tcctgggact ggagtgtctc atctctgccc
 300
 agagcctccc aagactcggc tatctcatct ccatcgggag cctcctgaga ctggagtgcc
 360
 tgatctctgc ctggagcctc ccaa
 384

<210> 2744
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 2744
 Xaa Ile Leu Pro Ser Ala Ser Arg Asp Ser Gly Val Leu Ser Pro Pro
 1 5 10 15
 Gly Ala Ser Gln Asp Ser Gly Val Gln Ser Pro Pro Gly Ala Ser Arg
 20 25 30
 Asp Trp Ser Val Pro Ser Pro Pro Thr Ala Ser Gln Asp Ser Gly Val
 35 40 45
 Gln Ser Pro Pro Gly Ala Ser Arg Asp Trp Ser Val Pro Ser Pro Pro
 50 55 60
 Arg Ala Tyr Gln Asp
 65

<210> 2745
 <211> 769
 <212> DNA
 <213> Homo sapiens

<400> 2745
 gaattccacc ttcctcctcg cagtgtctgag aggcagcgag gacggagagg acagcggcat
 60
 ctctaggctc ttctgagagg gacagagaaa gaatagaaat gtgccctaaa agcataaatg
 120

agtatcacct gagaaaatta ggcattcccg tcttggaac acgtctctgt gagtttgc
 180
 ttcatttggc ttggagccct ggctcgatgc ctcatggatc tttctcccca aggagggacg
 240
 tcttgagggg tccgagcctc aggccaagga cccctgatgc agactctgga atccctggcc
 300
 caaaggcctg tctgggcccc tctggggctg aggacacaca gatacataat gacacctgca
 360
 gaaatgtatt ctctgaggac acttagaata tgaggaagag ggtgtggccc aaccctcact
 420
 tcacctgggg aggggcttct tccggacagt agacaccctg cccgtgcaga gagatgtcat
 480
 gggggcacct gctctccctg atagatgctg agagcatcca gaaacttcca gaccagccct
 540
 ctcaccacac ccagaagagg cctttcccat ctggagagaa gcttccagac cagcccttca
 600
 cacaccacag ccaggagggg cctttcccac ctgggagaga aacttccaga ccagccctc
 660
 ataccacagc caagaggggc ctttctcacc tggagagaaa cttccagacc agccctcac
 720
 accacagcca agaggggcct tcccccccg gagagaaact tccagacca
 769

<210> 2746

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2746

Met	Ser	Trp	Gly	His	Leu	Leu	Ser	Leu	Ile	Asp	Ala	Glu	Ser	Ile	Gln
1				5					10					15	
Lys	Leu	Pro	Asp	Gln	Pro	Ser	His	His	Thr	Gln	Lys	Arg	Pro	Phe	Pro
			20					25					30		
Ser	Gly	Glu	Lys	Leu	Pro	Asp	Gln	Pro	Phe	Thr	His	His	Ser	Gln	Glu
			35				40					45			
Gly	Pro	Phe	Pro	Pro	Gly	Arg	Glu	Thr	Ser	Arg	Pro	Ala	Pro	His	Thr
			50			55					60				
Thr	Ala	Lys	Arg	Gly	Leu	Ser	His	Leu	Glu	Arg	Asn	Phe	Gln	Thr	Ser
65					70				75					80	
Pro	Ser	His	His	Ser	Gln	Glu	Gly	Pro	Phe	Pro	Pro	Gly	Glu	Lys	Leu
				85				90						95	
Pro	Asp														

<210> 2747

<211> 1100

<212> DNA

<213> Homo sapiens

<400> 2747

tttttcttct ccaggcccag ggccccggcc agtgcccagc cccgctggga gccccggcca
 60
 gcaccacgga cggcgcccag gaagcccag tccccctgga cgggggcctt ctggattccg
 120

agggccccgg cagggttcgcc caagggctgc ttcgcttgcg tgtccaagcc ccctgccctg
 180
 cagggtccgg cgccccctgc ccctgagccc tcggcctctc ccccgatggc gcccacactg
 240
 ttccccatgg agtccaagag cagcaagacc gacagcgtgc gggctgccgg cgcgccccct
 300
 gcctgcaagc acctagccga gaagaagacg atgaccaacc ccacgaccgt catcgaggtc
 360
 taccgggaca ccaccgaggt gaacgactat tacctgtggg ccatcttcaa cttcgtctac
 420
 ctcaacttct gctgcctggg cttcatcgcc ttggcctact ccctcaaagt gcgagacaag
 480
 aagctttctca atgacctgaa tggagccgtg gaggatgcaa agacggcccc gctgttcaac
 540
 atcaccagtt ctgccctggc agcctcctgc atcatcctcg tcttcatctt cctgcggtac
 600
 cccctcaccg actactaagg cccgccaggc acggctgctg gcggagacaa gcactgagac
 660
 atgtttattc tcatggtccc tgaaacgcag gatcccatga ggttggggca gggcagggt
 720
 tcttgctctg gggccccctt gagctgtgaa ctgggcagca aggccatcag aagctgagta
 780
 cagcaagggg gcagtgagct tggccctcag tccacccctt ccgcctcctg gcctccaccc
 840
 tgctgtgtgc tggggcctgg gggcttctcc cctcgtgct gcaccctggc ttccagcgtc
 900
 tgtgtccctg cctcacgtg ccccttccca ggctcctggg gccccttggg cctgacacct
 960
 agcaggaagg gcttatgcaa aattgtccca ggttgggagg actcactctg tgctccccga
 1020
 ccctgcctcc tccaagatgt gaccccgctc agagcccttg tgtctgtgaa ctttcaatga
 1080
 aatacccatg cagctccaaa
 1100

<210> 2748

<211> 205

<212> PRT

<213> Homo sapiens

<400> 2748

Phe	Phe	Phe	Ser	Arg	Pro	Arg	Ala	Pro	Ala	Ser	Ala	Gln	Pro	Arg	Trp
1				5				10						15	
Glu	Pro	Arg	Pro	Ala	Pro	Arg	Thr	Ala	Pro	Arg	Lys	Pro	Glu	Ser	Pro
			20					25					30		
Trp	Thr	Gly	Ala	Phe	Trp	Ile	Pro	Arg	Pro	Pro	Ala	Gly	Ser	Pro	Lys
		35					40					45			
Gly	Cys	Phe	Ala	Cys	Val	Ser	Lys	Pro	Pro	Ala	Leu	Gln	Ala	Pro	Ala
	50					55				60					
Ala	Pro	Ala	Pro	Glu	Pro	Ser	Ala	Ser	Pro	Pro	Met	Ala	Pro	Thr	Leu
65					70					75				80	
Phe	Pro	Met	Glu	Ser	Lys	Ser	Ser	Lys	Thr	Asp	Ser	Val	Arg	Ala	Ala
				85				90					95		
Gly	Ala	Pro	Pro	Ala	Cys	Lys	His	Leu	Ala	Glu	Lys	Lys	Thr	Met	Thr

				100				105					110			
Asn	Pro	Thr	Thr	Val	Ile	Glu	Val	Tyr	Pro	Asp	Thr	Thr	Glu	Val	Asn	
				115				120					125			
Asp	Tyr	Tyr	Leu	Trp	Ser	Ile	Phe	Asn	Phe	Val	Tyr	Leu	Asn	Phe	Cys	
				130				135					140			
Cys	Leu	Gly	Phe	Ile	Ala	Leu	Ala	Tyr	Ser	Leu	Lys	Val	Arg	Asp	Lys	
145						150					155				160	
Lys	Leu	Leu	Asn	Asp	Leu	Asn	Gly	Ala	Val	Glu	Asp	Ala	Lys	Thr	Ala	
				165					170					175		
Arg	Leu	Phe	Asn	Ile	Thr	Ser	Ser	Ala	Leu	Ala	Ala	Ser	Cys	Ile	Ile	
				180				185					190			
Leu	Val	Phe	Ile	Phe	Leu	Arg	Tyr	Pro	Leu	Thr	Asp	Tyr				
				195				200				205				

```
<210> 2749
<211> 2050
<212> DNA
<213> Homo sapiens
```

<400> 2749
nnacgcgtgt cctgaacct acctgcgctt cttgtcccaa ctctaaaatg ggaatgataa
60
gcgccattcg gcagcgcctt gtgggtctat aatctactta gcacagagag tgtcttctaa
120
gtacttcaca tcttctctg cagatgctct gaccttgac ccctgccgtt cagctctagg
180
gcccgtgcag gccacaccat gaacacctcc ccaggcacgg tgggcagtga cccggtcac
240
ctggccactg caggctacga ccacaccgtg cgcttctggc aggccacag cggcatctgc
300
acccggacgg tgcagcacca ggactccag gtgaatgcct tggaggtcac accggaccgc
360
agcatgattg ctgctgcagt tcagcctgtg tccctagggt accagcacat ccgcatgtat
420
gatctcaact ccaataacct taaccccatc atcagctacg acggcgtcaa caagaacatc
480
gcgtctgtgg gcttcacga agacggccgc tggatgtaca cgggcggcga ggactgcaca
540
gccaggatct gggacctcag gtcccgaac ctgcagtgcc agcggatctt ccagggtgaac
600
gcacccatta actgcgtgtg cctgcacccc aaccaggcag agctcatcgt gggtgaccag
660
agcggggcta tccacatctg ggacttga aaacagaccaca acgagcagct gatccctgag
720
cccgagggtct ccatcacgtc cgccacatc gatcccgacg ccagctacat ggcagctgtc
780
aatagcaccc gaaactgcta tgtctggaat ctgacggggg gcattgggtga cgagggtgacc
840
cagctcatcc ccaagactaa gatecctgcc cacacgcgct acgccctgca gtgtcgcttc
900
agccccgact ccacgtcctt cgccacctgc tcggctgatc agacgtgcaa gatctggagg
960
acgtccaact tctccctgat gacggagctg agcatcaaga gcggcaaccc cggggagtcc
1020

tcccgcggct ggatgtgggg ctgcgccttc tccggggact cccagtacat cgtcactgct
 1080
 tcctcggaca acctggcccg gctctggtgt gtggagactg gagagatcaa gagagagtat
 1140
 ggcggccacc agaaggctgt tgtctgcctg gccttcaatg acagtgtgct gggctagcct
 1200
 gtgacccctc gggactgcct ggtgcaggctg gtggcagctg gagggacca tgcagacccc
 1260
 aggtcagagc agaccctccc ctgccggcct gcgccagctg gacctgatgg cccctgtgg
 1320
 cgccttgacc tgctgggcca ggctgccctg ggactctcag ccccagttg cttatccaga
 1380
 tgtgacagag ctcgacccaa gccaggctgc aactcctgg actgggctag cctgcactgc
 1440
 ctgggaaagt cggccgaggg cccaaagctg ctgaggggtc tgaggctggt gccaccccc
 1500
 aagctagtgt gttctctgcc cctccctgcc cgcgtttcag ggctcggtc catagagaac
 1560
 accaccacca tggccaggctg gaagggttta ttagtccttg ccagcagctg tcctccctgg
 1620
 tgcaggctggc ctggccagcc cactggattg gggacgggccc aggctgggccc aggtcggggg
 1680
 ctcagtctgg gaggtaataa aagcagaccg acacgcagat gttgctcggg aagcagatgt
 1740
 cgatgcagag ataaatcagc cgctgtctcc ggggcccctc tgctcgccgg gccagtaga
 1800
 tgggggtcct catgcacagg cgctgcacca aagccccgc ctgggcggtg gccacttacg
 1860
 aggtccccc gactgccag cagctcctgg gtgtgggtggg tgcctggct ggggacccaa
 1920
 gcctcttgga ccttgagggt atccaccagc agccgcaggt ctcccgatca ctgtcctcca
 1980
 tcaggcggag gaagcagacc tgggtgctcct cagggcggtg acagatgcag ccgctctgcc
 2040
 cgtcgaacag
 2050

<210> 2750

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2750

Met	Asn	Thr	Ser	Pro	Gly	Thr	Val	Gly	Ser	Asp	Pro	Val	Ile	Leu	Ala
1				5				10					15		
Thr	Ala	Gly	Tyr	Asp	His	Thr	Val	Arg	Phe	Trp	Gln	Ala	His	Ser	Gly
		20						25				30			
Ile	Cys	Thr	Arg	Thr	Val	Gln	His	Gln	Asp	Ser	Gln	Val	Asn	Ala	Leu
		35				40					45				
Glu	Val	Thr	Pro	Asp	Arg	Ser	Met	Ile	Ala	Ala	Ala	Val	Gln	Pro	Val
	50					55				60					
Ser	Leu	Gly	Tyr	Gln	His	Ile	Arg	Met	Tyr	Asp	Leu	Asn	Ser	Asn	Asn
65				70					75					80	
Pro	Asn	Pro	Ile	Ile	Ser	Tyr	Asp	Gly	Val	Asn	Lys	Asn	Ile	Ala	Ser

								85				90				95			
Val	Gly	Phe	His	Glu	Asp	Gly	Arg	Trp	Met	Tyr	Thr	Gly	Gly	Glu	Asp				
				100				105				110							
Cys	Thr	Ala	Arg	Ile	Trp	Asp	Leu	Arg	Ser	Arg	Asn	Leu	Gln	Cys	Gln				
				115				120				125							
Arg	Ile	Phe	Gln	Val	Asn	Ala	Pro	Ile	Asn	Cys	Val	Cys	Leu	His	Pro				
				130				135				140							
Asn	Gln	Ala	Glu	Leu	Ile	Val	Gly	Asp	Gln	Ser	Gly	Ala	Ile	His	Ile				
145				150				155				160							
Trp	Asp	Leu	Lys	Thr	Asp	His	Asn	Glu	Gln	Leu	Ile	Pro	Glu	Pro	Glu				
				165				170				175							
Val	Ser	Ile	Thr	Ser	Ala	His	Ile	Asp	Pro	Asp	Ala	Ser	Tyr	Met	Ala				
				180				185				190							
Ala	Val	Asn	Ser	Thr	Gly	Asn	Cys	Tyr	Val	Trp	Asn	Leu	Thr	Gly	Gly				
				195				200				205							
Ile	Gly	Asp	Glu	Val	Thr	Gln	Leu	Ile	Pro	Lys	Thr	Lys	Ile	Pro	Ala				
210				215				220											
His	Thr	Arg	Tyr	Ala	Leu	Gln	Cys	Arg	Phe	Ser	Pro	Asp	Ser	Thr	Leu				
225				230				235				240							
Leu	Ala	Thr	Cys	Ser	Ala	Asp	Gln	Thr	Cys	Lys	Ile	Trp	Arg	Thr	Ser				
				245				250				255							
Asn	Phe	Ser	Leu	Met	Thr	Glu	Leu	Ser	Ile	Lys	Ser	Gly	Asn	Pro	Gly				
				260				265				270							
Glu	Ser	Ser	Arg	Gly	Trp	Met	Trp	Gly	Cys	Ala	Phe	Ser	Gly	Asp	Ser				
				275				280				285							
Gln	Tyr	Ile	Val	Thr	Ala	Ser	Ser	Asp	Asn	Leu	Ala	Arg	Leu	Trp	Cys				
290				295				300											
Val	Glu	Thr	Gly	Glu	Ile	Lys	Arg	Glu	Tyr	Gly	Gly	His	Gln	Lys	Ala				
305				310				315				320							
Val	Val	Cys	Leu	Ala	Phe	Asn	Asp	Ser	Val	Leu	Gly								
				325				330											

<210> 2751

<211> 1877

<212> DNA

<213> Homo sapiens

<400> 2751

```

nntcatgagc cagcacaact gctccaagga tggccccacc tcgcagccac gcttgcgcac
60
gctcccaccn ggccggagac agccaggagc gctcggacag ccccgagatc tgccattacg
120
agaagagctt tcacaagcac tcggccaccc ccaactacac gcactgtggc ctcttcgggg
180
accacacact caggactttc accgaccgct tccagacctg caaggtgcag ggcgcctggc
240
cgctcatcga caataattac ctgaacgtgc aggtcaccaa cagcctgtg ctgccagct
300
cagcggccac tgccaccagc aagctcacca tcatcttcaa gaacttccag gagtgtgtgg
360
accagaaggc gtaccaggct gagatggacg agctcccggc cgccttcgtg gatggctcta
420
agaacggtgg ggacaagcac ggggccaaca gcctgaagat cactgagaag gtgtcaggcc
480

```

agcacgtgga gatccaggcc aagtacatcg gcaccaccat cgtggtgccc caggtgggccc
540
gctacctgac ctttgccgtc cgcattgccag aggaagtggc caatgctgtg gaggactggg
600
acagccaggc tctctacctc tgccctgccc gctgccccct caaccagcag atcgacttcc
660
aggccttcca caccaatgct gagggcaccg gtgcccgcag gctggcagcc gccagccctg
720
caccacagc ccccgagacc ttcccatcag agacagccgt ggccaagtgc aaggagaagc
780
tgccggtgga ggacctgtac taccaggcct gcgtcttcga cctcctcacc acgggcccagc
840
tgaacttcac actggccgcc tactacgcgt tggaggatgt caagatgctc cactccaaca
900
aagacaaact gcacctgtat gagaggactc gggacctgcc aggcagggcg gctgccccgc
960
tgccctggc ccccgggccc ctccctggcg cctcgtccc gctcctggcc ctgctccctg
1020
tgtttgcta gacgcgtaga tgtggaggga ggcgcgggct ccgtcctctc ggcttccccca
1080
tgtgtgggt gggaccgccc acgggggtgca gatctcctgg cgtgtccacc atggccccgc
1140
agaacgccag ggaccgcctg ctgccaaggc ctcaggcatg gacccctccc cttctagtgc
1200
acgtgacaag gttgtggtga ctggtgccgt gatgtttgac agtagagctg tgtgagaggc
1260
agagcagctc cctcgcgcc gccctgcag tgtgaatgtg tgaaacatcc cctcaggctg
1320
aagcccccca ccccccaccag agacacactg ggaaccgtca gagtcagctc cttccccctc
1380
gcaatgcact gaaaggcccc gccgactgct gctcgccgat ccgtggggcc cctgtgccc
1440
gccacacgca cgcacacact cttacacgag agcacactcg atccccctag gccagcgggg
1500
acacccagc cacacaggga ggcacccctg gggcttggcc ccaggcaggg caaccccggg
1560
gcgtgcttg gcaccttagc agactgctgg aaccttttgg ccagtaggtc gtgcccgcct
1620
ggtgccttct ggctgtggc ctccctgccc atgttcacct ggctgctgtg ggtaccagtg
1680
caggtcccgg ttttcaggca cctgctcagc tgcccgctc tggcctgggc cctgccccct
1740
ccacctgtg cttagaaagt cgaagtgctt ggttctaaat gtctaaacag agaagagatc
1800
cttgacttct gttcctctcc ctccctgcaga tgcaagagct cctggggcag gggtgccctg
1860
ggccccaggc tggtggc
1877

<210> 2752

<211> 87

<212> PRT

<213> Homo sapiens

<400> 2752

Xaa His Glu Pro Ala Gln Leu Leu Gln Gly Trp Pro His Leu Ala Ala
 1 5 10 15
 Thr Pro Ala His Ala Pro Thr Xaa Pro Glu Thr Ala Arg Ser Ala Arg
 20 25 30
 Thr Ala Pro Arg Ser Ala Ile Thr Arg Arg Ala Phe Thr Ser Thr Arg
 35 40 45
 Pro Pro Pro Thr Thr Arg Thr Val Ala Ser Ser Gly Thr His Thr Ser
 50 55 60
 Gly Leu Ser Pro Thr Ala Ser Arg Pro Ala Arg Cys Arg Ala Pro Gly
 65 70 75 80
 Arg Ser Ser Thr Ile Ile Thr
 85

<210> 2753

<211> 2561

<212> DNA

<213> Homo sapiens

<400> 2753

nngccgtctt cagatgactt ctgtcggatg cctcctccct gtagtgattc ctgtgacttt
 60
 gatgacccca ggctgttgaa gaacattgag gatcgccatc ccacagcccc ttgcattcag
 120
 gagttectca cctttctggc cgtgtgccac acggttggtc ctgagaagga tggagataac
 180
 atcatctacc aggcctcttc cccagatgaa gctgcttttg tgaaaggagc taaaaagctg
 240
 ggctttgtct tcacagccag aacaccattc tcagtcacatc tagaagcgat gggacaggaa
 300
 caaacatttg gaatccttaa tgtcctggaa ttttctagt acagaaaaag aatgtctgta
 360
 attgttcgaa ctcttcagg acgacttcgg ctttactgta aaggggctga taatgtgatt
 420
 tttgagagac tttcaaaaga ctcaaaatat atggaggaaa cattatgcca tctggaatac
 480
 tttgccacgg aaggcttgcg gactctctgt gtggcttatg ctgatctctc tgagggcaat
 540
 gagtatgagg agtggctgaa agtctatcag gaagccagca ccatattgaa ggacagagct
 600
 caacggtttg aagagtgtta cgagatcatt gagaagaatt tgctgctact tggagccaca
 660
 gccatagaag atcgcttca agcaggagtt ccagaaacca tcgcaacact gttgaaggca
 720
 gaaattaaaa tatgggtgtt gacaggagac aaacaagaaa ctgcgattaa tatagggtat
 780
 tcctgccgat tggatcgca gaatatggcc cttatcctat tgaaggggga ctctttggat
 840
 gccacaaggg cagccattac tcagcactgc actgaccttg ggaatttgct gggcaaggaa
 900
 aatgacgttg cctcatcat cgatggccac accctgaagt acgcgctctc cttcgaagtc
 960
 cggaggagtt tcctggattt ggcactctcg tgcaaagcgg tcatatgctg cagagtgtct
 1020

cctctgcaga agtctgagat agtggatgtg gtgaagaagc ggggtgaaggc catcacccctc
1080
gccatcgagg acggcgccaa cgatgtcggg atgatccaga cagcccacgt ggggtgtggga
1140
atcagtggga atgaaggcat gcaggccacc aacaactcgg attacgccat cgcacagttt
1200
tcctacttag agaagcttct gttggttcat ggagcctgga gctacaaccg ggtgaccaag
1260
tgcattctgt actgcttcta taagaacgtg gtctgtata ttattgagct ttggttcgcc
1320
tttgtaatg gattttctgg gcagatttta tttgaacgtt ggtgcatcgg cctgtacaat
1380
gtgattttca ccgctttgcc gcccttcaact ctgggaatct ttgagaggtc ttgcaactcag
1440
gagagcatgc tcagggttcc ccagctctac aaaatcaccc agaatggcga aggcttcaac
1500
acaaaggttt tctgggggtca ctgcatcaac gccttgggtcc actccctcat cctcttctgg
1560
tttcccatga aagctctgga gcatgatact gtgttgacaa gtggtcatgc taccgactat
1620
ttatttggtg gaaatattgt ttacacatat gttgttggtta ctgtttgtct gaaagctggt
1680
ttggagacca cagcttggac taaattcagt catctggctg tctggggaag catgctgacc
1740
tggtctggtgt tttttggcat ctactcgacc atctggccca ccattcccat tgetccagat
1800
atgagaggac aggcaactat ggtcctgagc tccgcacact tctgggtggg attatttctg
1860
gttcctactg cctgtttgat tgaagatgtg gcatggagag cagccaagca cacctgcaaa
1920
aagacattgc tggaggaggt gcaggagctg gaaaccaagt ctcgagtcct gggaaaagcg
1980
gtgctgcggg atagcaatgg aaagaggctg aacgagcgcg accgcctgat caagaggctg
2040
ggccggaaga cgcctccgac gctgttccgg ggcagctccc tgcagcaggg cgtcccgcac
2100
gggtatgctt tttctcaaga agaacacgga gctgttagtc aggaagaagt catccgtgct
2160
tatgacacca ccaaaaagaa atccaggaag aaataagaca tgaattttcc tgactgatct
2220
taggaaagag attcagtttg ttgcaccag tggttaacaca tctttgtcag agaagactgg
2280
cgtcagcagc caaaacacca ggaaacacat ttctgtggcc ttagccaagc agtttggttag
2340
ttacatatcc cctcgcaaac ctggagtga gaccacaggg gaagctatct ttgccctccc
2400
aactcgtctg cagtgttag cctaactttt gtttatgtcg ttatgaagca ttcaactgtg
2460
ctctgtgagg tgtgaaatta aaaacattat gtttcaccaa taaaaaaaaa aaaaaaaaaa
2520
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
2561

<210> 2754

<211> 731

<212> PRT

<213> Homo sapiens

<400> 2754

```

Xaa Pro Ser Ser Asp Asp Phe Cys Arg Met Pro Pro Pro Cys Ser Asp
 1          5          10          15
Ser Cys Asp Phe Asp Asp Pro Arg Leu Lys Asn Ile Glu Asp Arg
 20          25          30
His Pro Thr Ala Pro Cys Ile Gln Glu Phe Leu Thr Leu Leu Ala Val
 35          40          45
Cys His Thr Val Val Pro Glu Lys Asp Gly Asp Asn Ile Ile Tyr Gln
 50          55          60
Ala Ser Ser Pro Asp Glu Ala Ala Leu Val Lys Gly Ala Lys Lys Leu
 65          70          75          80
Gly Phe Val Phe Thr Ala Arg Thr Pro Phe Ser Val Ile Ile Glu Ala
 85          90          95
Met Gly Gln Glu Gln Thr Phe Gly Ile Leu Asn Val Leu Glu Phe Ser
100          105          110
Ser Asp Arg Lys Arg Met Ser Val Ile Val Arg Thr Pro Ser Gly Arg
115          120          125
Leu Arg Leu Tyr Cys Lys Gly Ala Asp Asn Val Ile Phe Glu Arg Leu
130          135          140
Ser Lys Asp Ser Lys Tyr Met Glu Glu Thr Leu Cys His Leu Glu Tyr
145          150          155          160
Phe Ala Thr Glu Gly Leu Arg Thr Leu Cys Val Ala Tyr Ala Asp Leu
165          170          175
Ser Glu Gly Asn Glu Tyr Glu Glu Trp Leu Lys Val Tyr Gln Glu Ala
180          185          190
Ser Thr Ile Leu Lys Asp Arg Ala Gln Arg Leu Glu Glu Cys Tyr Glu
195          200          205
Ile Ile Glu Lys Asn Leu Leu Leu Leu Gly Ala Thr Ala Ile Glu Asp
210          215          220
Arg Leu Gln Ala Gly Val Pro Glu Thr Ile Ala Thr Leu Leu Lys Ala
225          230          235          240
Glu Ile Lys Ile Trp Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Ile
245          250          255
Asn Ile Gly Tyr Ser Cys Arg Leu Val Ser Gln Asn Met Ala Leu Ile
260          265          270
Leu Leu Lys Gly Asp Ser Leu Asp Ala Thr Arg Ala Ala Ile Thr Gln
275          280          285
His Cys Thr Asp Leu Gly Asn Leu Leu Gly Lys Glu Asn Asp Val Ala
290          295          300
Leu Ile Ile Asp Gly His Thr Leu Lys Tyr Ala Leu Ser Phe Glu Val
305          310          315          320
Arg Arg Ser Phe Leu Asp Leu Ala Leu Ser Cys Lys Ala Val Ile Cys
325          330          335
Cys Arg Val Ser Pro Leu Gln Lys Ser Glu Ile Val Asp Val Val Lys
340          345          350
Lys Arg Val Lys Ala Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp
355          360          365
Val Gly Met Ile Gln Thr Ala His Val Gly Val Gly Ile Ser Gly Asn
370          375          380
Glu Gly Met Gln Ala Thr Asn Asn Ser Asp Tyr Ala Ile Ala Gln Phe

```

385					390					395				400	
Ser	Tyr	Leu	Glu	Lys	Leu	Leu	Leu	Val	His	Gly	Ala	Trp	Ser	Tyr	Asn
				405					410					415	
Arg	Val	Thr	Lys	Cys	Ile	Leu	Tyr	Cys	Phe	Tyr	Lys	Asn	Val	Val	Leu
			420					425					430		
Tyr	Ile	Ile	Glu	Leu	Trp	Phe	Ala	Phe	Val	Asn	Gly	Phe	Ser	Gly	Gln
		435					440					445			
Ile	Leu	Phe	Glu	Arg	Trp	Cys	Ile	Gly	Leu	Tyr	Asn	Val	Ile	Phe	Thr
	450					455				460					
Ala	Leu	Pro	Pro	Phe	Thr	Leu	Gly	Ile	Phe	Glu	Arg	Ser	Cys	Thr	Gln
465					470					475					480
Glu	Ser	Met	Leu	Arg	Phe	Pro	Gln	Leu	Tyr	Lys	Ile	Thr	Gln	Asn	Gly
				485					490					495	
Glu	Gly	Phe	Asn	Thr	Lys	Val	Phe	Trp	Gly	His	Cys	Ile	Asn	Ala	Leu
			500					505					510		
Val	His	Ser	Leu	Ile	Leu	Phe	Trp	Phe	Pro	Met	Lys	Ala	Leu	Glu	His
		515					520					525			
Asp	Thr	Val	Leu	Thr	Ser	Gly	His	Ala	Thr	Asp	Tyr	Leu	Phe	Val	Gly
	530					535					540				
Asn	Ile	Val	Tyr	Thr	Tyr	Val	Val	Val	Thr	Val	Cys	Leu	Lys	Ala	Gly
545					550					555					560
Leu	Glu	Thr	Thr	Ala	Trp	Thr	Lys	Phe	Ser	His	Leu	Ala	Val	Trp	Gly
				565					570					575	
Ser	Met	Leu	Thr	Trp	Leu	Val	Phe	Phe	Gly	Ile	Tyr	Ser	Thr	Ile	Trp
			580					585					590		
Pro	Thr	Ile	Pro	Ile	Ala	Pro	Asp	Met	Arg	Gly	Gln	Ala	Thr	Met	Val
		595					600					605			
Leu	Ser	Ser	Ala	His	Phe	Trp	Leu	Gly	Leu	Phe	Leu	Val	Pro	Thr	Ala
	610					615					620				
Cys	Leu	Ile	Glu	Asp	Val	Ala	Trp	Arg	Ala	Ala	Lys	His	Thr	Cys	Lys
625					630					635					640
Lys	Thr	Leu	Leu	Glu	Glu	Val	Gln	Glu	Leu	Glu	Thr	Lys	Ser	Arg	Val
				645					650					655	
Leu	Gly	Lys	Ala	Val	Leu	Arg	Asp	Ser	Asn	Gly	Lys	Arg	Leu	Asn	Glu
			660					665					670		
Arg	Asp	Arg	Leu	Ile	Lys	Arg	Leu	Gly	Arg	Lys	Thr	Pro	Pro	Thr	Leu
		675					680						685		
Phe	Arg	Gly	Ser	Ser	Leu	Gln	Gln	Gly	Val	Pro	His	Gly	Tyr	Ala	Phe
	690					695					700				
Ser	Gln	Glu	Glu	His	Gly	Ala	Val	Ser	Gln	Glu	Glu	Val	Ile	Arg	Ala
705					710					715					720
Tyr	Asp	Thr	Thr	Lys	Lys	Ser	Arg	Lys	Lys						
				725					730						

<210> 2755

<211> 4795

<212> DNA

<213> Homo sapiens

<400> 2755

atcgggtcat atagagatgt catgaagttg tgtgctgctc atctccctac tgaatcagat
60

gcaccaaadc attatcaggc agtatgtcgt gcaactgtttg cagaaacaat ggagctccat
120

acatttctga ccaaaattaa gagtgcgaaa gagaatctta agaagattca agaaatggaa
180
aagagcgatg aatctagcac agacttgga gagctgaaaa acgctgactg ggcacgattc
240
tggttacagg tgatgagga tttgaggaat ggggtaaaa ttaagaagg ccaagagcgg
300
cagtacaacc ctttgcccat tgaatatcag ctcacccctt atgagatggt aatggatgac
360
attcgctgca aaagatacac cttgcgaaaa gtgatgggtga atggatgat tccccctcgg
420
ttaaaaaaga gtgctcatga aatcatcctc gacttcatca gatccagacc tcctttaaat
480
ccagtctcag ccagaaaact gaaaccaact ccaccacggc cacggagcct ccatgaaaga
540
atattagaag aaattaaagc agaaagaaag ctgcggcctg tatcaccaga ggagattaga
600
cgtagcagat tagatgtgac taccctgaa tctacaaaga atcttgtgga gtcattctatg
660
gtgaatggag gtttgacatc acaaacaaaa gaaaacgggt taagtacctc acagcagggtg
720
cctgcacagc ggaagaagct cctcagagcc ccaactctgg ccgaactgga cagctctgag
780
tctgaggaag aaacgctgca caagtcgacc agcagcagca gcgtgtctcc ctctttccct
840
gaagagccag tcctggaggc cgtgtccaca aggaagaagc ctccaaaatt cctgcccata
900
tcatcaacac ccagccaga gagacggcag ccaccccaga gacgacattc cattgaaaag
960
gaaacgccta ctaacgtgag gcagttcctg ccgccttcca ggcagagttc ccgctctctt
1020
gaggaattct gctaccagc ggaatgcctc gctcttactg tggaagaagt gatgcatatt
1080
cgccagggtcc tgggtgaaggc agagctggaa aaataccaac agtataaaga catctacacc
1140
gccttgaaaa aaggaaagct ctgcttttgt tgccgaacca ggagggtttc cttcttctact
1200
tggtcttata cctgtcagtt ctgtaagagg ccggtgtgct cacagtgttg caaaaagatg
1260
cggctgcctt ccaaaccata ctccactctt cctatctttt cattgggacc ttctgctctg
1320
caaagagggg aaagtagtat gaggtcagaa aaaccctcca ctgccatca tcggccactt
1380
cggagcattg ccaggttctc ctcaaaatct aagtctatgg acaaatcaga tgaagaactc
1440
cagtttccca aagagttgat ggaggactgg agcaccatgg aggtgtgtgt ggactgcaag
1500
aagttcattt cggaaatcat cagttcaagc cggcgcagtc tgggtgttggc caacaaaagg
1560
gcccgattga aaaggaaaac gcagtctttc tacatgtcct cgccaggccc ctcgagtagc
1620
tgcccttcag agaggacgat cagtgagatc tgagcctcgt gcctttcagc tgcttttgtg
1680
ctacgagtca gcgtccgtgc gcgaggacac tgagccgggc tggtctctct ttctgtggtt
1740

ttattttaatg ggcttgaatt tgcattagat cagatttttg ccgcatcaca ttgttccaca
 1800
 gactgaatgc tgtgttcgta tcgattgatg aaacgtgaca ggtccgcaa ttgctcgttt
 1860
 gcactgagag aggacaacag tttgaaactt acttttgtgt gtgtgtggct ttggaagcca
 1920
 gtagctactt ccttagttca gttctttact gttcctcgaa taatctcctg actaaggcaa
 1980
 aaaaaaaaaag cttctcctac gagaatcagt ctaacagaga tgccgatgtc agcacagccc
 2040
 taagcagtaa gtcataattgg catttccacg tgactgtgtt tctatcccgt gtacagagag
 2100
 atccagagcc ctacactcca cgacctgggg gctcacagca cagaacctag aagcacctgc
 2160
 tgacactctt caactgattt ttaaagtgtg ttgcttgag ataaaaatta cataagggac
 2220
 tttttgcctg cattctagtg caaaacatct gaagagctgt acaccacaa gggtgactat
 2280
 ttcccctgag tggccgtgtt gtcccagtgc cctgggtcag tgtctcctga gtggatgaca
 2340
 ggtcttcatt ctctatcttg aatgtattat ggttactaat agttttataa tggagggtcta
 2400
 agaattaaag ttgtgtggga gtttcaggac aaaggaaggc taaaagtgtg tcaagacgtt
 2460
 gagcgtattt tgggttaccta tgagaagggt tgtgacagtg tacagtggca gctgttgaggc
 2520
 acgctgcaga aatgagctgg agctcatggg ttttcagcta catttttcat aactttgtag
 2580
 tacatccatc ttgagtaaat taagccacaa tttggtacct aggggtctcaa actaaaattt
 2640
 atttttataa atgaatttta aaagaaaaaa tatctacttc ttttaaagt tgaagaaaat
 2700
 taacctgctg acaggcaaca tttttggggg gctttctgca ctagttttcc ttgtaaatga
 2760
 tttgagttag taggtttggg ttctgacgaa agtagactgg agggtagcat tgtatgcctc
 2820
 aaatgtctca gtgtgtttgg ctcatcgtg ggctatactt tattattttg gtatgcttac
 2880
 aaatgactaa ccaatcaaat tgtcattaat gtttggaata tctgttaatg cacatgcaca
 2940
 ataatttcct gaaagccata ggacatgtct gtagtcagca ccacgatagc accgtttcat
 3000
 gaaaggcatg ggggtgcat ttcataccac atcaaaatac agtaacattt ctatactaaa
 3060
 ttaacagtaa tacctcaaaa ctgctccggg agtagttttt aatggattga aatttacagt
 3120
 ttagtaaaag gcttaaaatt acttatactt atgaaataaa ctttaccagt tgactaaaat
 3180
 aatgcatgtt aacagttggg ctgtatttgc atgtaaaagt gggccaccag agaaccctta
 3240
 ttgattactt aagtgtttac attattttta agactcctgt ttaagagctt tcagaattgt
 3300
 actgggtgaa tctcatttat aaaacttcct aagagactat ctgaactcta tactccagac
 3360

agttaggtgg gagtataaat ctacccttt tgatgacccc aggcttgagt ttttaaaatg
 3420
 actaccaga agggcacaag ggggaaggaa atgggtatttg tatatgtata taaatatgca
 3480
 cctaggagaa tgtgtttttt aaaataatga ctactgtttt tattaaaaca taagaaacta
 3540
 cacccecaaa ataagacttt cattcacatt cacaagcaa acatctagta catgtctttc
 3600
 acttcacttt atgatatgtt attggatgat ttgggcatta cgatcacctc ttaccacagc
 3660
 acagaacata cattcttcaa cagcattaac ggagtttgcc aagtgcatta aagaggtcac
 3720
 gtggagggtg cgttcatatg aaacaatctg cagaaagtgg ggtaagaaag ggcacatggc
 3780
 acagttaaag ttgtagaaat caaattacta tcattttttg ttgccaaaac aaagtcttac
 3840
 atttaacccc cctttctacc acccccctc cacacttcac gtcagctaca tagtttccac
 3900
 agggtaatc actaagagct tgtggagctt gggttttaaa tccttagcct ggtctgactt
 3960
 taggcatagc ttccagttct tccttccttg tcctggtttc ttgttcagct tttacttcta
 4020
 atccaacaac aaaagaaatg tctggctggg ctcagctaga gtctgatgtg tcttagagca
 4080
 tgtgtgcgta tctgaaccat catccctgct ctcactcag ctcctccag gcctgagcac
 4140
 cggttccttt tgtcccatac gtcatgaagt cacactattg ggaaacctgt gcttccctct
 4200
 ccatggctta actccctgtc agtgtcggag tgtataagaa tgcttgtaaa tactgtaata
 4260
 tatttattaa tatttgaaag gcattcattc agtggacagt gggaattaac tctccaagg
 4320
 caagtgaata tgaatgattg acgtacgttg atttaacaat cttactagat ttttaattctt
 4380
 aaggatttca aatgaaacca gaagggtggt atgtaagagg cttaaaatga tcttatgttt
 4440
 aaagagattc tgttattagc accatgaact cgtactatga aatttttaag ctttttattt
 4500
 ttctaactat attactgtag gactggatat taggtgtcat ataggaaaca caaaagttat
 4560
 tgctgtttgc taaagcaaaa tagcagaaaa ttttgtatat gcaaaactgt tgaaggacca
 4620
 tagagaaatg tgtactactg acggggcttt tactaggctt cctgcgtgtg taaaagtcga
 4680
 ggtattgctg gcattcaggg tgacatgatg gtactaaatg tttccatta aagtcttcta
 4740
 ttttaaaatt tagagaaaa taaaatggct ttccatgcag aaaaaaaaaa aaaaa
 4795

<210> 2756

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2756

```

Ile Arg Ser Tyr Arg Asp Val Met Lys Leu Cys Ala Ala His Leu Pro
 1           5           10           15
Thr Glu Ser Asp Ala Pro Asn His Tyr Gln Ala Val Cys Arg Ala Leu
          20           25           30
Phe Ala Glu Thr Met Glu Leu His Thr Phe Leu Thr Lys Ile Lys Ser
          35           40           45
Ala Lys Glu Asn Leu Lys Lys Ile Gln Glu Met Glu Lys Ser Asp Glu
          50           55           60
Ser Ser Thr Asp Leu Glu Glu Leu Lys Asn Ala Asp Trp Ala Arg Phe
65          70          75          80
Trp Val Gln Val Met Arg Asp Leu Arg Asn Gly Val Lys Leu Lys Lys
          85          90          95
Val Gln Glu Arg Gln Tyr Asn Pro Leu Pro Ile Glu Tyr Gln Leu Thr
          100         105         110
Pro Tyr Glu Met Leu Met Asp Asp Ile Arg Cys Lys Arg Tyr Thr Leu
          115         120         125
Arg Lys Val Met Val Asn Gly Asp Ile Pro Pro Arg Leu Lys Lys Ser
          130         135         140
Ala His Glu Ile Ile Leu Asp Phe Ile Arg Ser Arg Pro Pro Leu Asn
145         150         155         160
Pro Val Ser Ala Arg Lys Leu Lys Pro Thr Pro Pro Arg Pro Arg Ser
          165         170         175
Leu His Glu Arg Ile Leu Glu Glu Ile Lys Ala Glu Arg Lys Leu Arg
          180         185         190
Pro Val Ser Pro Glu Glu Ile Arg Arg Ser Arg Leu Asp Val Thr Thr
          195         200         205
Pro Glu Ser Thr Lys Asn Leu Val Glu Ser Ser Met Val Asn Gly Gly
          210         215         220
Leu Thr Ser Gln Thr Lys Glu Asn Gly Leu Ser Thr Ser Gln Gln Val
225         230         235         240
Pro Ala Gln Arg Lys Lys Leu Leu Arg Ala Pro Thr Leu Ala Glu Leu
          245         250         255
Asp Ser Ser Glu Ser Glu Glu Glu Thr Leu His Lys Ser Thr Ser Ser
          260         265         270
Ser Ser Val Ser Pro Ser Phe Pro Glu Glu Pro Val Leu Glu Ala Val
          275         280         285
Ser Thr Arg Lys Lys Pro Pro Lys Phe Leu Pro Ile Ser Ser Thr Pro
          290         295         300
Gln Pro Glu Arg Arg Gln Pro Pro Gln Arg Arg His Ser Ile Glu Lys
305         310         315         320
Glu Thr Pro Thr Asn Val Arg Gln Phe Leu Pro Pro Ser Arg Gln Ser
          325         330         335
Ser Arg Ser Leu Glu Glu Phe Cys Tyr Pro Val Glu Cys Leu Ala Leu
          340         345         350
Thr Val Glu Glu Val Met His Ile Arg Gln Val Leu Val Lys Ala Glu
          355         360         365
Leu Glu Lys Tyr Gln Gln Tyr Lys Asp Ile Tyr Thr Ala Leu Lys Lys
          370         375         380
Gly Lys Leu Cys Phe Cys Cys Arg Thr Arg Arg Phe Ser Phe Phe Thr
385         390         395         400
Trp Ser Tyr Thr Cys Gln Phe Cys Lys Arg Pro Val Cys Ser Gln Cys
          405         410         415
Cys Lys Lys Met Arg Leu Pro Ser Lys Pro Tyr Ser Thr Leu Pro Ile

```

```

<400> 2758
Met Leu Ala Met Asp Thr Cys Lys His Val Gly Gln Leu Gln Leu Ala
 1             5             10             15
Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys
          20             25             30
Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala
          35             40             45
Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser

```


50 55 60
 Ser His Pro Val Ala Leu Glu Val Asn Glu Met Tyr Val Phe Cys Tyr
 65 70 75 80
 Leu Cys

<210> 2759
 <211> 688
 <212> DNA
 <213> Homo sapiens

<400> 2759
 taccgaagtc ctttcgccc caggccacgc cagcagccta ccacagaagg tggggatggt
 60
 gagaccaagc ccagccaagg tcccgtgat gggtcccggc ctgagcccca gcgcccacga
 120
 aaccgcccct acttcacgag gagacggcag caggcccctg gccccagca ggcccctggc
 180
 ccccggcagc cgcagcccc tgagacctca gcccctgtca acagtgggga cccaccacc
 240
 accatcctgg agtgattcca actcaactca aaggacaccc agagctgcca tctggtatct
 300
 gccagttttt ccaaagacc tgtaccctac ccagtaccct gctccccctt tcccataatt
 360
 catgacatca aaacatcagc ttttcacctt ttcccttgaga ctcaggaggg ccaaagcaac
 420
 agcctttggc tttttctctt ttttcttccc tctcccctag catgggttga aggaaggag
 480
 ccataccttac tgttcagaga cagcaactcc ctcccgtaac tcaggctgag aaggaaccag
 540
 ccagctctta cctcctcctg gttgcttttc ttgccccac cccaagttaa ttttgtttt
 600
 ccccgggccc cctacctctg aagccatttt atgatctgtc atgtgccacc tgagcctcca
 660
 gtaaaaacaa aaacaggaaa aaaaaaaaa
 688

<210> 2760
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 2760
 Tyr Arg Ser Pro Phe Arg Pro Arg Pro Arg Gln Gln Pro Thr Thr Glu
 1 5 10 15
 Gly Gly Asp Gly Glu Thr Lys Pro Ser Gln Gly Pro Ala Asp Gly Ser
 20 25 30
 Arg Pro Glu Pro Gln Arg Pro Arg Asn Arg Pro Tyr Phe Gln Arg Arg
 35 40 45
 Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro
 50 55 60
 Ala Ala Pro Glu Thr Ser Ala Pro Val Asn Ser Gly Asp Pro Thr Thr
 65 70 75 80
 Thr Ile Leu Glu

<210> 2761

<211> 922

<212> DNA

<213> Homo sapiens

<400> 2761

acgcgtgaag ggccacaggt atctgaaaat ttgcagaaaa cagaattaag tgatggaaaa
 60
 agtattgaac cagggggaat agacattacc cttagtagtt ctctttccca ggcggtgat
 120
 ccataactg agggcaataa agagccagat aagacctggg tgaaaaaggg agagcccctc
 180
 ccggtaaaac tgaactcttc tacagaagca aatgtgatta aagaggctct agactcctct
 240
 ttggaatcta ctctggacaa cagctgtcaa ggtgcacaaa tggataataa atctgaagtt
 300
 cagttgtggc tgtaaagag aattcaggta ccattgaag atatacttcc ttcaaaagaa
 360
 gaaaaaagca agaccccacc catgttctctg tgcataaag tgggaaaacc aatgagaaaa
 420
 tcctttgcca ctcacactgc agccatggtc cagcagtacg gcaaacggag aaagcagcca
 480
 gagtactggt ttgctgttcc tcgggagagg gtggatcatt tgtacacatt ctttgttcag
 540
 tgggtctccg atgtctatgg aaaagatgcc aaagagcaag gctttgtggt ggtggagaag
 600
 gaagaactga acatgattga caacttcttc agtgagccaa caaccaagag ctgggagatc
 660
 atcactgttg aagaggcaaa gcgcaggaag agcacatgca gctactatga agacgaggac
 720
 gaagaggtgc tgctgtctc cgggcccccc agggcggtct gggagaataa gccctgaac
 780
 cgctgggccc gcccttttcc tgcaagggtg caagggtatc catggagact ggcctatagc
 840
 acgttagagc acgggaccag cttaaagacg ctctaccgga aatcggcatc actagacagt
 900
 cctgtcctat tggatcatca ag
 922

<210> 2762

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2762

Thr Arg Glu Gly Pro Gln Val Ser Glu Asn Leu Gln Lys Thr Glu Leu
 1 5 10 15
 Ser Asp Gly Lys Ser Ile Glu Pro Gly Gly Ile Asp Ile Thr Leu Ser
 20 25 30
 Ser Ser Leu Ser Gln Ala Gly Asp Pro Ile Thr Glu Gly Asn Lys Glu
 35 40 45
 Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu